

WATER-QUALITY DATA FOR STREAMS IN THE UPPER  
NORTH FORK OF THE GUNNISON RIVER, COLORADO

By J. Michael Norris and Wendy S. Maura

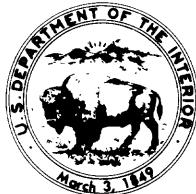
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## METRIC CONVERSIONS

The inch-pound units used in this report may be converted to SI (International System) units by using the following conversion factors:

<i>Multiply inch-pound units</i>	<i>By</i>	<i>To obtain metric units</i>
acre-foot (acre-ft)	0.001233	cubic hectometer
cubic foot per second (ft <sup>3</sup> /s)	0.02832	cubic meter per second
square mile (mi <sup>2</sup> )	2.590	square kilometer
ton per acre-foot (ton/acre-ft)	1.119	kilogram per cubic hectometer
ton per day (ton/d)	907.2	kilogram per day

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ABSTRACT

Coal mining in the upper reaches of the North Fork of the Gunnison River has been a major economic factor in the area for many years. In recent years, concerns about impacts of coal mining on surface-water quality have been raised. To answer such questions, it was necessary to describe the areas natural or background surface-water quality. To achieve this description for the study area, a program for the synoptic collection of water-quality data was established in 1982.

Water-quality data was collected on continuously flowing streams in the Upper North Fork of the Gunnison River basin in 1982 and 1983. Each site was sampled repetitively as changes occurred in discharge and specific conductance.

INTRODUCTION

Coal mining in the Upper North Fork of the Gunnison River valley has been a major economic factor for many years. Most coal mines in the area are located on the north bank of the North Fork of the Gunnison River.

Many concerns regarding the impacts of coal mining on surface-water quality have been raised. To identify any changes in water quality as a result of coal mining, it is necessary first to describe the natural or background surface-water quality of the area. Water quality of the study area is influenced by geology, climate, and land use. The area's climate varies with elevation from semiarid at lower elevations to alpine at higher elevations. The geology of the area is complex, ranging from sedimentary to igneous rocks, and land use varies from natural forest to coal mining and urbanized areas. To determine what influence these factors have on water quality, a synoptic water-quality data collection program was developed and a network of sampling sites was established based on differences in geology, climate, and land use.

The study started in 1982 and water-quality samples were collected for two years to provide information on the existing surface-water chemistry of the area. The objective of this report is to make available that water-quality data.

Description of Study Area and Types of Data Collected

The data collection area includes the North Fork of the Gunnison River basin above Paonia, Colo., as shown in figure 1. Water-quality sampling site locations are also shown in figure 1; a description of each site is given in table 1.

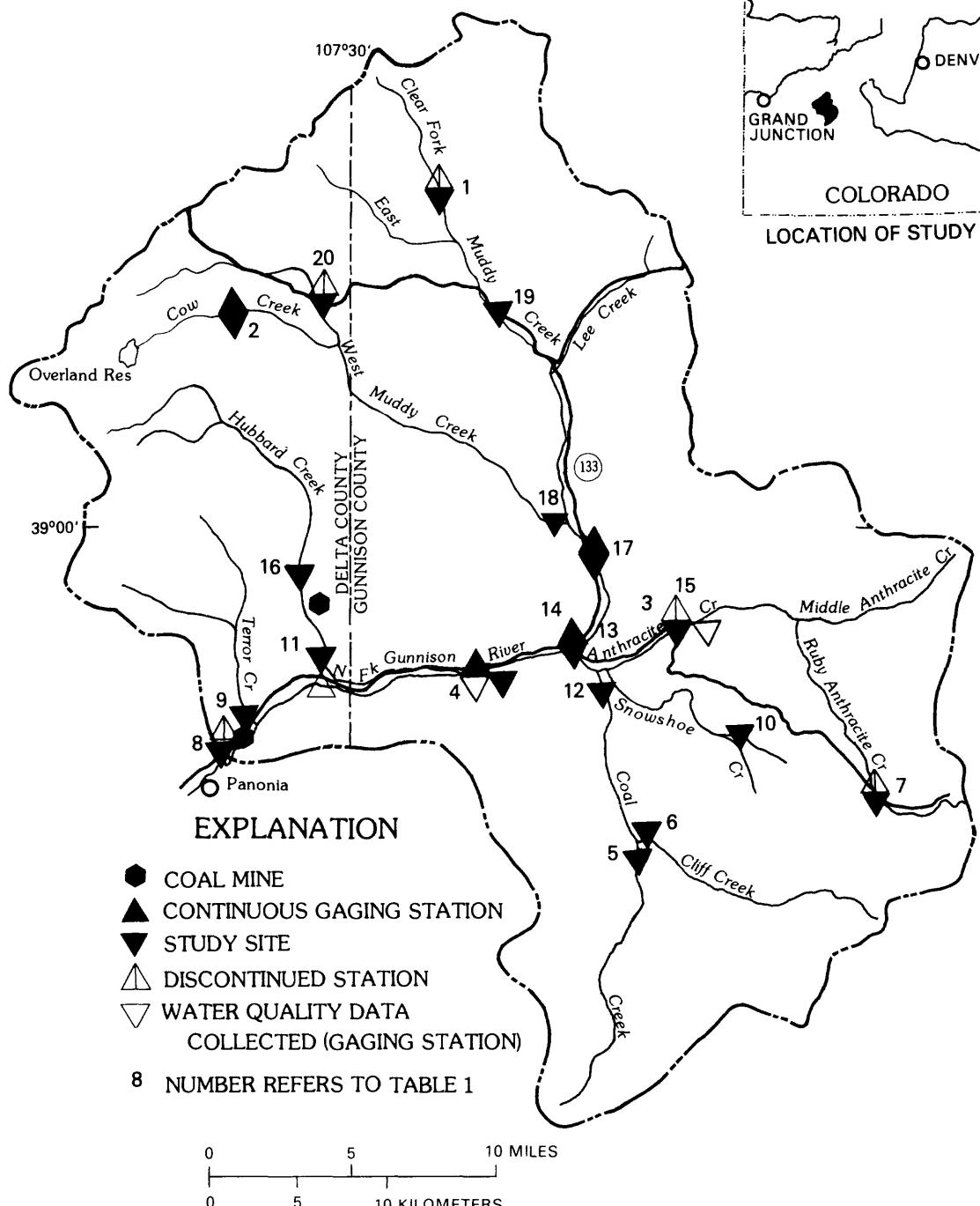
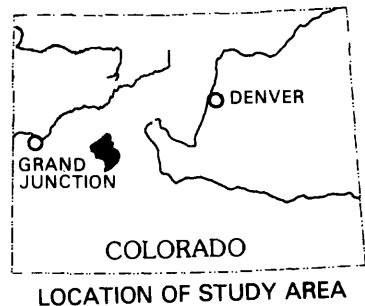


Figure 1.--Location map of study area and water-quality sampling sites.

Table 1.--Water-quality sampling sites in the Upper North Fork of the Gunnison River basin  
[mi<sup>2</sup>, square mile]

Site number (in fig. 1)	Station number	Station name	Latitude	Longitude	Sequence number	Drainage area (mi <sup>2</sup> )
1	09129800	Clear Fork near Ragged Mountain	39°08'36"	107°25'50"	00	38.5
2	09131100	Cow Creek near Paonia	39°06'15"	107°35'02"	00	12.0
3	09132050	Anthracite Creek near Somerset	38°57'14"	107°16'23"	00	94.6
4	09132500	North Fork Gunnison River near Somerset	38°55'45"	107°26'53"	00	526
5	385033107190300	Upper Coal Creek near Somerset	38°50'33"	107°19'03"	00	52.3
6	385037107190300	Cliff Creek near Somerset	38°50'37"	107°19'03"	00	35.1
7	385146107094700	Ruby Anthracite Creek near Kebler Pass	38°51'46"	107°09'47"	00	20.7
8	385308107345100	North Fork Gunnison River above Paonia	38°53'08"	107°34'51"	00	653
9	385414107334000	Terror Creek near Paonia	38°54'14"	107°33'40"	00	29.5
10	385506107161400	Grouse Spring Creek near Marcelling Mountain	38°55'06"	107°16'14"	00	2.35
11	385532107310400	Lower Hubbard Creek near Bowie	38°55'32"	107°31'04"	00	55.2
12	385534107201900	Lower Coal Creek near Somerset	38°55'34"	107°20'19"	00	101
13	385538107202400	Lower Anthracite Creek near Somerset	38°55'38"	107°20'24"	00	130
14	385626107212000	Muddy Creek below Paonia Reservoir	38°56'26"	107°21'20"	00	257
15	385712107162600	Upper Anthracite Creek near Somerset	38°57'12"	107°16'26"	00	95.0
16	385741107315100	Upper Hubbard Creek near Bowie	38°57'41"	107°31'51"	00	52.0
17	385903107210800	Muddy Creek above Paonia Reservoir	38°59'03"	107°21'08"	00	257
18	390000107212700	Lower West Muddy Creek near Paonia Reservoir	39°00'00"	107°21'27"	00	98.4
19	390620107241900	East Muddy Creek near Ragged Mountain	39°06'20"	107°24'19"	00	81.6
20	390658107312500	West Muddy Creek near West Muddy Creek Ranger Station	39°06'58"	107°31'25"	00	27.7

The water-quality sites in the study area were established in March 1982 and were selected on the basis of differences in geology, land use, and climate. Sites that were sampled in this study are shown in figure 1.

Several samples were taken at each site to represent different streamflow and specific-conductance values. Some sites were inaccessible during much of the spring season; therefore, some higher streamflows from snowmelt may not be represented.

Onsite measurements of specific conductance, water temperature, pH, and streamflow were recorded for each sample. Analyses and calculations were performed to determine concentrations of major dissolved constituents, nutrients, trace elements, suspended sediment, and water properties. Water sample analyses were performed at the U.S. Geological Survey's Denver Central Laboratory. The trace elements were analyzed for total, dissolved, and suspended concentrations.

Onsite measurements and data for the major dissolved constituents collected at sites in this study are shown in tables 2-38 in the "Water-Quality Data" section. Data for nutrients and trace elements from samples collected at these sites are shown in tables 39-75 in the "Water-Quality Data" section.

These data are also in the U.S. Geological Survey's National Water Storage and Retrieval System (WATSTORE). In addition, a statistical summary of water-quality data collected at two streamflow-gaging stations prior to the start of this study are in tables 76 and 77. These stations have data from the analyses of enumerable water-quality samples; therefore, only a summary of the data is presented, which includes the number of samples, mean, range, and standard deviation, for each constituent. The data are also available from the U.S. Geological Survey's WATSTORE system.

## WATER-QUALITY DATA

The following abbreviations are used in tables 2-77.

FT<sup>3</sup>/S is cubic feet per second;  
μS/CM is microsiemens per centimeter;  
°C is degrees Celsius;  
MG/L is milligrams per liter;  
TONS PER AC-FT is tons per acre-feet;  
T/DAY is tons per day;  
μG/L is micrograms per liter;  
RECOV. is recoverable; and  
PCI/L is picocuries per liter

(One trillionth ( $1 \times 10^{-12}$ ) of the amount of radioactivity represented by a curie (Ci) per liter. A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second. A picocurie yields 2.2 disintegrations per minute (dpm)).

Table 2--Onsite measurements and major dissolved constituent data for station 09129800, Clear Fork near Ragged Mountain (site 1), Water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	MAGNE-NESS (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS MG)	SODIUM PERCENT AS N)	SODIUM ADSORP-TION RATIO
MAY 19...	188	126	8.6	6.5	61	0	20	2.6	3.7	12	.2	
JUL 12...	17	139	8.6	18.5	71	0	24	2.6	3.4	9	.2	
AUG 03...	4.2	209	8.0	17.0	98	0	33	3.8	5.8	11	.3	
18...	3.4	212	8.4	21.5	100	0	35	4.1	5.5	10	.2	
<hr/>												
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, CONSTI-TUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, SUM OF SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)		
MAY 19...	.80	63	7.0	1.4	.20	9.6	83	.11	42	.160		
JUL 12...	.70	72	<5.0	.90	<.10	7.5	--	--	--	.100		
AUG 03...	.80	117	<5.0	1.0	.10	8.1	--	--	--	<.100		
18...	.90	115	5.0	1.2	.10	8.1	130	.18	1.2	<.100		

Table 3.--Onsite measurements and major dissolved constituent data for station 09129800, Clear Fork near Ragged Mountain (site 1), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DISOLVED (MG/L AS CA)	MAGNESIUM, DISOLVED (MG/L AS MG)	SODIUM, DISOLVED (MG/L AS NA)	SODIUM-ADSORPTION RATIO
JUN 21...	405	82	8.2	10.5	40	0	13	1.8	2.7	.2
JUL 06...	146	88	8.4	11.0	45	0	15	1.9	3.0	.2
20...	36	154	8.3	21.5	75	0	25	3.1	3.3	.2
AUG 03...	19	198	8.2	16.0	110	0	36	4.1	4.6	.2
16...	9.1	230	8.2	19.0	120	0	42	4.8	5.8	.2
<hr/>										
POTASSIUM, DISOLVED (MG/L AS AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DISOLVED (MG/L AS AS SO <sub>4</sub> )	CHLORIDE, DISOLVED (MG/L AS AS CL)	FLUORIDE, DISOLVED (MG/L AS AS F)	SILICA, DISOLVED (MG/L AS SI02)	SOLIDS, CONSTITUENTS, DISOLVED (TONS PER DAY)	SUM OF SOLIDS, SOLVED (TONS PER DAY)	SOLIDS, DISOLVED (TONS PER DAY)	SOLIDS, DISOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)
JUN 21...	.70	46	5.1	.80	<.10	7.5	59	.08	65	.420
JUL 06...	.60	49	5.0	.50	<.10	6.6	62	.08	24	.140
20...	.80	82	4.0	.90	<.10	7.7	94	.13	9.1	.260
AUG 03...	1.1	111	3.6	1.0	<.10	9.3	130	.17	6.5	<.100
16...	1.1	129	5.0	1.5	.10	9.0	150	.20	3.6	<.100

Table 4.--Onsite measurements and major dissolved constituent data for station 09131100, Cow Creek near Paonia (site 2), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC COND- DUCT- ANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD-NESS			MAGNE-			SODIUM- AD- SORP- TION RATIO		
					HARD- NESS	HARD- NESS (MG/L AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	SODIUM, DIS- SOLVED (MG/L AS NA)	MAGNE- SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM, PERCENT ATION RATIO		
JUN 08...	72	38	7.3	8.5	27	0	7.8	1.8	2.9	19	.3		
25...	6.0	74	8.1	9.5	43	0	12	3.2	2.1	9	.1		
JUL 12...	26	40	7.9	16.0	28	0	8.3	1.8	1.2	8	.1		
AUG 03...	1.3	107	7.8	13.0	56	0	16	4.0	2.4	8	.1		
18...	.55	103	7.8	13.0	54	4	15	3.9	2.5	9	.2		
POTAS-SIUM, DIS-LAB SOLVED (MG/L AS AS K)	ALKALINITY DIS- LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS SO <sub>4</sub> )	FLUO- RIDE, DIS- SOLVED (MG/L AS AS F)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>			
JUN 08...	.50	29	<5.0	1.3	.20	6.2	--	--	--	--	.500		
25...	.70	45	11	.80	<.10	9.6	67	.09	1.1	<.100			
JUL 12...	.50	29	<5.0	.60	<.10	6.9	--	--	--	<.100			
AUG 03...	.90	64	6.0	.50	<.10	7.9	76	.10	.27	<.100			
18...	.80	50	7.0	.60	<.10	8.2	68	.09	.10	<.100			

Table 5.--Onsite measurements and major dissolved constituent data for station 09131100, Cow Creek near Paonia, water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM SOLVED (MG/L AS CACO <sub>3</sub> )	SODIUM, DISOLVED (MG/L AS NA)	MAGNE-SIUM, DISOLVED (MG/L AS NA)	SODIUM, DISOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM-ADSORPTION RATIO
JUN 08...	169	50	8.1	3.0	28	0	8.1	1.9	1.1	8	.0	
21...	135	40	8.0	5.0	23	0	6.7	1.6	1.1	9	.1	
JUL 06...	166	48	8.2	8.0	25	0	7.3	1.6	1.1	9	.0	
20...	17	58	7.9	14.5	31	0	9.2	1.9	1.1	7	.0	
AUG 03...	.82	105	7.6	15.0	52	0	15	3.6	2.1	8	.1	
16...	.86	140	7.8	18.5	69	0	20	4.7	3.2	9	.2	
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POTASSIUM, DISOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DISOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DISOLVED (MG/L AS CL)	FLUORIDE, DISOLVED (MG/L AS F)	SILICA, TENTS, DISOLVED (MG/L AS SiO <sub>2</sub> )	CONSTANTS, TUENTS, DISOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF SOLVED (TONS PER DAY)	SOLIDS, DISOLVED (TONS PER DAY)	SOLIDS, DISOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)	DISOLVED (TONS PER DAY)	DISOLVED (TONS PER DAY)
JUN 08...	.70	30	7.2	.90	<.10	7.2	4.5	.06	21	.200		
21...	.60	23	6.0	.50	<.10	6.6	37	.05	14	1.60		
JUL 06...	.60	26	7.3	.60	<.10	6.6	41	.06	18	<.100		
20...	1.1	30	7.6	.90	<.10	7.2	47	.06	2.2	.200		
AUG 03...	1.8	55	6.0	1.2	<.10	10	73	.10	.16	<.100		
16...	2.2	70	7.0	1.2	.10	11	91	.12	.21	<.100		

Table 6.--Onsite measurements and major dissolved constituent data for station 09132500, North Fork Gunnison River near Somerset (site 4), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/cm)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-NESS (MG/L AS NA)	SODIUM-AD-SORP-TION RATIO	
									HARDNESS AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 07...	78	160	7.1	12.0	60	0	19	3.1	7.1	20
DEC 08...	65	195	6.3	.0	70	0	22	3.7	7.8	19
JAN 26...	91	210	--	.0	81	0	25	4.4	8.9	19
MAR 23...	285	235	8.7	2.5	110	0	34	5.8	10	16
MAY 04...	3020	110	6.9	8.5	54	0	17	2.9	4.4	15
05...	3080	126	7.8	7.0	55	0	17	3.0	4.8	16
JUN 09...	1980	75	8.5	13.0	44	0	14	2.1	7.1	26
17...	1680	53	7.8	10.5	35	0	11	1.8	3.8	19
22...	1800	73	--	13.5	35	0	11	1.9	4.6	22
29...	1400	235	6.7	18.5	38	0	12	1.9	3.0	15
JUL 15...	513	81	9.1	16.5	40	0	13	1.9	3.8	17
27...	309	120	7.3	19.0	48	0	15	2.5	4.5	17
AUG 10...	225	112	8.5	18.0	60	0	19	3.0	5.6	17
19...	225	129	8.2	19.0	58	0	18	3.2	5.2	16
24...	283	140	6.8	15.0	51	6	16	2.7	4.3	15

Table 6.--Onsite measurements and major dissolved constituent data for station 09132500, North Fork Gunnison River near Somerset (site 4), water year October 1981 to September 1982--Continued

POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS)	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO- RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI-TUENTS, (MG/L AS)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 SOLVED (MG/L AS N)
OCT 07....	.70	66	5.0	1.8	.10	9.0	.85	.12
DEC 08....	.80	73	7.0	2.2	.00	9.4	.97	.13
JAN 26....	1.6	91	5.0	2.3	.10	9.5	.110	.15
MAR 23....	1.3	120	5.0	2.4	.20	9.8	.140	.19
MAY 04....	1.0	60	7.0	1.2	.20	8.8	.79	.11
05....	1.0	61	6.0	2.0	.20	9.1	.80	.11
JUN 09....	.50	43	6.0	.70	.10	8.7	.65	.09
17....	.50	41	7.0	1.1	.20	8.0	.58	.08
22....	.50	40	9.0	1.0	.20	7.9	.60	.08
29....	.50	38	7.0	.50	<.10	7.9	.56	.08
JUL 15....	.50	44	6.0	.70	<.10	7.8	.60	.08
27....	1.0	56	9.0	.90	<.10	8.5	.75	.10
AUG 10....	.70	60	8.0	.90	.10	9.6	.83	.11
19....	.70	59	8.0	1.4	<.10	9.1	.81	.11
24....	.70	45	8.0	.80	<.10	8.5	.68	.09
							.52	--

Table 7.--Onsite measurements and major dissolved constituent data for station 385033107190300, Upper Coal Creek near Somerset (site 5), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS		MAGNETISM		SODIUM-ADSORPTION RATIO	
					HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	SILICON, DIS-SOLVED (MG/L AS NA)	SODIUM, PERCENT SODIUM	
JUL 14....	--	74	8.5	15.5	38	0	11	2.5	3.5	.3
AUG 05....	37	100	8.4	15.5	51	12	15	3.4	4.6	.3
17....	23	125	8.0	15.0	56	6	16	3.8	4.6	.3
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POTASSIUM, DATE	ALKALINITY, DATE	SULFATE DIS-LAB (MG/L AS K)	CHLORIDE, DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	FLUORIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	SILICA, DIS-SOLVED (MG/L AS F)	SOLIDS, CONSTITUENTS, DIS-SOLVED (TONS AC-FT)	SOLIDS, SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> -NO <sub>3</sub> , DIS-SOLVED (MG/L AS N)	
JUL 14....	.40	41	8.0	.60	<.10	9.7	60	.08	--	<.100
AUG 05....	.50	40	11	.60	<.10	11	70	.10	7.0	<.100
17....	.50	50	10	.50	<.10	11	76	.10	4.7	<.100

Table 8.--Onsite measurements and major dissolved constituent data for station 385033107190300, Upper Coal Creek near Somerset (site 5), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (STAND- ARD UNITS) ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD- NESS (MG/L AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)	MAGNE- NESS (MG/L AS NA)	SODIUM, AD- SORP- TION RATIO
JUN 07...	--	120	7.8	4.0	57	0	16	4.1	8.9	.5
23...	--	95	7.8	6.5	41	3	12	2.6	4.1	.3
JUL 07...	255	85	8.6	8.0	41	23	12	2.7	4.2	.3
19...	117	95	8.2	11.0	52	9	16	2.9	3.8	.2
AUG 01...	87	155	7.7	17.0	52	0	15	3.5	4.6	.3
15...	39	130	8.4	23.0	59	0	17	4.0	4.9	.3
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POTASSIUM, DIS-LAB SOLVED (MG/L AS K)	ALKALINITY DIS-LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, CONSTI-TUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)	
JUN 07...	.70	56	1.3	.90	.10	10	87	.12	--	.860
23...	1.8	38	9.4	1.6	<.10	11	65	.09	--	.650
JUL 07...	.50	18	9.7	.40	<.10	10	50	.07	35	14.0
19...	2.7	43	9.4	2.0	<.10	9.9	73	.10	23	.450
AUG 01...	2.0	53	1.0	1.7	<.10	11	80	.11	19	.560
15...	.50	63	11	.60	.10	11	87	.12	9.1	6.50

Table 9.-Onsite measurements and major dissolved constituent data for station 385037107190300, Cliff Creek near Somerset (site 6), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CACO <sub>3</sub> )	MAGNESIUM, SILICON, DISOLVED (MG/L AS MG)	SODIUM, DISOLVED (MG/L AS NA)	SODIUM-ADSORPTION RATIO
MAY 19...	188	126	8.6	6.5	61	0	20	2.6	3.7	.2
JUL 14...	--	36	8.1	13.5	22	0	6.8	1.1	3.5	.3
AUG 03...	38	49	7.7	13.5	25	0	7.9	1.4	4.9	.4
17...	30	56	7.7	13.5	27	0	8.7	1.4	4.2	.4
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POTASSIUM, DISOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS) CACO <sub>3</sub> )	SULFATE DISOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DISOLVED (MG/L AS CL)	FLUORIDE, DISOLVED (MG/L AS F)	SILICA, DISOLVED (MG/L AS SI0 <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, DISOLVED (MG/L AS) SI0 <sub>2</sub> )	SOLIDS, DISOLVED (TONS PER DAY)	SOLIDS, DISOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)	
MAY 19...	.80	63	7.0	1.4	.20	9.6	83	.11	42	.160
JUL 14...	.40	30	<5.0	.30	<.10	12	--	--	--	<.100
AUG 03...	.50	30	<5.0	.30	<.10	14	--	--	--	<.100
17...	.50	31	<5.0	.30	<.10	13	--	--	--	<.100

Table 10.--Onsite measurements and major dissolved constituent data for station 38503710190300, Cliff Creek near Somerset (site 6), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD- NESS (MG/L) AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L) AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L) AS CACO <sub>3</sub> )	SODIUM, DIS- SOLVED (MG/L) AS NA)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM, PERCENT SODIUM RATIO
JUN 07...	--	50	7.7	4.0	29	0	8.6	1.8	7.2	35 .6
23...	--	46	7.9	6.0	21	0	6.5	1.1	2.3	19 .2
JUL 07...	277	62	8.8	8.0	20	0	6.0	1.1	2.6	19 .3
19...	103	55	8.1	11.0	24	0	7.8	1.2	3.3	22 .3
AUG 01...	65	65	7.6	14.0	25	0	7.9	1.4	4.0	25 .4
15...	34	75	7.9	21.0	29	0	8.8	1.7	4.5	25 .4
POTASSIUM, DIS-SOLVED (MG/L) AS K)	ALKALINITY, LAB (MG/L)	SULFATE DIS-SOLVED (MG/L) AS CACO <sub>3</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L) AS SO <sub>4</sub> )	FLUO- RIDE, DIS- SOLVED (MG/L) AS CL)	SILICA, DIS- SOLVED (MG/L) AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTI- TUENTS, (TONS PER AC-Ft)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>	
JUN 07...	.50	29	4.2	.40	<.10	9.8	50	.07	--	.730
23...	.40	25	3.8	.50	<.10	9.4	39	.05	--	.240
JUL 07...	3.1	26	3.5	2.6	<.10	10	45	.06	33	.100
19...	.60	30	3.2	.30	<.10	12	46	.06	13	.160
AUG 01...	1.0	35	2.5	.70	<.10	13	51	.07	9.0	.100
15...	.60	37	<5.0	.50	<.10	13	--	--	--	<.100

Table 11.--Onsite measurements and major dissolved constituent data for station 385146107094700, Ruby Anthracite Creek near Kebler Pass (site 7), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	PERCENT SODIUM	MAGNE-NESS
JUN 10...	347	34	8.3	3.5	24	0	8.0	.89	3.6	24	.3
21...	192	35	7.6	6.0	23	0	7.8	.85	3.3	23	.3
JUL 14...	75	30	7.9	10.0	22	0	7.6	.80	2.1	17	.2
AUG 04...	23	58	8.0	13.5	29	1	9.8	1.1	3.0	18	.3
16...	20	70	7.5	17.0	32	1	11	1.1	3.2	18	.3
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POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SUM OF CONSTI-TUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)
JUN 10...	.50	29	<5.0	.90	.10	5.6	--	--	--	--	.250
21...	.40	25	9.0	.70	.10	5.7	43	.06	22	--	.210
JUL 14...	.30	25	<5.0	.30	<.10	4.8	--	--	--	--	<.100
AUG 04...	.40	28	5.0	.30	<.10	4.9	41	.06	2.6	<.100	
16...	.40	31	6.0	.30	<.10	4.8	46	.06	2.5	<.100	

Table 12.--Onsite measurements and major dissolved constituent data for station 385146107094700, Ruby Anthracite Creek near Kebler Pass (site 7), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS MG)	MAGNESIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, PERCENT SODIUM	SODIUM-ADSORPTION RATIO
JUN 22...	453	42	7.7	4.0	22	0	7.4	.77	2.0	16	.2
JUL 05...	607	38	7.9	7.0	21	0	7.0	.80	1.9	16	.2
JUL 18...	103	42	7.8	13.0	23	0	7.6	.86	1.9	15	.2
AUG 02...	49	66	7.9	12.0	31	0	11	.92	2.3	13	.2
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POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, CONSTITUENTS, TUENTS, DIS-SOLVED (MG/L AS)	SOLIDS, SUM OF TUNTS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	
JUN 22...	.50	26	5.2	.40	<.10	5.2	37	.05	46	.120	
JUL 05...	.70	23	5.7	.80	<.10	4.9	36	.05	59	.310	
JUL 18...	.30	22	5.2	.30	<.10	4.5	34	.05	9.5	1.20	
AUG 02...	1.0	31	5.2	.70	<.10	4.4	44	.06	5.8	<.100	

Table 13.--Onsite measurements and major dissolved constituent data for station 385308107345100,  
North Fork Gunnison River above Paonia (site 8), water year October 1981 to September 1982

DATE	(FT <sup>3</sup> /S)	STREAM-FLOW, INSTAN-TANEOUS (μS/CM)	SPE-CIFIC CON-DUCT-ANCE	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS AS CACO <sub>3</sub> )	NONCAR-BONATE AS CACO <sub>3</sub> )	CALCIUM AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, AD-SORP-TION RATIO
APR 14...	1010	133	6.8	6.0	53	0	15	3.7	11	31 .7
MAY 20...	949	145	7.7	10.5	67	0	18	5.3	8.0	20 .4
JUN 09...	2240	104	8.2	7.5	54	0	15	4.1	6.0	19 .4
JUN 24...	1290	160	8.0	13.5	69	0	18	5.9	8.5	21 .5
JUL 15...	440	182	8.2	12.5	65	0	18	4.9	6.2	17 .3
AUG 10...	68	369	8.0	20.5	130	14	34	11	20	25 .8
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POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO-ride, DIS-SOLVED (MG/L AS CL)	FLUO-ride, DIS-SOLVED (MG/L AS F)	SILICA, TIENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, CONSTI-TUENTS, DIS-SOLVED (TONS PER DAY)	SOLIDS, SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (TONS PER DAY)	
APR 14...	1.4	64	6.0	1.8	.10	9.7	88	.12	239	.260
MAY 20...	1.1	69	6.0	1.4	.20	11	93	.13	237	.110
JUN 09...	.70	61	10	1.1	.20	9.8	84	.11	505	.240
JUN 24...	.80	70	11	1.9	.20	10	98	.13	342	.390
JUL 15...	.70	66	12	1.1	<.10	8.8	91	.12	108	.110
AUG 10...	1.3	116	40	3.7	.20	10	190	.26	35	<.100

Table 14.--Onsite measurements and major dissolved constituent data for station 385308107345100,  
North Fork Gunnison River above Paonia (site 8), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNE-NESS SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO
MAY 31...	6620	110	7.4	9.0	56	0	17	3.2	8.8	.5
JUN 09...	4410	105	7.8	8.5	49	0	15	2.7	6.9	.4
20...	4640	92	7.5	12.5	44	0	14	2.3	6.2	.4
JUL 01...	2780	90	8.0	8.5	45	3	14	2.4	3.9	.3
19...	922	105	8.1	20.5	51	0	16	2.8	5.6	.4
AUG 04...	248	165	7.7	21.0	76	0	23	4.5	8.0	.4
17...	64	300	8.4	28.0	130	6	37	9.8	17	.7
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUO-RIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTI- TUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> SOLVED (MG/L AS N)	
MAY 31...	1.7	61	12	3.3	.10	9.1	92	.12	--	.620
JUN 09...	.90	55	8.4	.80	<.10	9.3	77	.10	919	.210
20...	.70	54	8.0	3.3	.20	8.7	76	.10	952	.470
JUL 01...	.80	42	7.8	1.1	<.10	8.3	64	.09	478	.970
19...	.70	52	10	.90	<.10	8.1	75	.10	188	<.100
AUG 04...	1.2	76	16	1.4	.10	8.5	110	.15	72	<.100
17...	1.5	127	37	3.4	.20	9.3	190	.26	33	<.100

Table 15.--Onsite measurements and major dissolved constituent data for station 385414107334000, Terror Creek near Paonia (site 9), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE (μS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM AD-SORP-TION PERCENT SODIUM RATIO
APR 14...	93	95	7.6	7.5	54	0	14	4.6	6.6	20 .4
JUN 09...	47	90	8.6	8.0	48	0	12	4.3	6.0	21 .4
24...	3.2	225	8.5	19.5	87	0	21	8.5	16	28 .8
JUL 15...	.89	225	8.5	15.5	90	0	23	8.0	9.6	18 .5
AUG 06...	.18	312	8.5	22.5	140	7	36	11	14	18 .5
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POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L AS PER AC-FT)	SOLIDS, SUM OF DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (TONS AS N)	
APR 14...	2.0	56	8.0	2.1	<.10	15	86	.12	22	.560
JUN 09...	1.0	53	8.0	2.2	.20	18	84	.11	11	.410
24...	1.9	96	15	1.4	.20	21	140	.19	1.2	.180
JUL 15...	1.7	93	19	1.2	.10	17	140	.18	.33	<.100
AUG 06...	2.0	128	27	1.8	.20	17	190	.25	.09	<.100

Table 16.--Onsite measurements and major dissolved constituent data for station 385414107334000, Terror Creek near Paonia (site 9), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM-ADSORPTION RATIO
MAY 31...	568	80	7.7	9.5	37	0	10	2.9	8.5	32 .6
JUN 09...	286	80	7.9	7.0	37	0	9.5	3.2	3.9	18 .3
20...	188	78	7.3	12.5	34	0	8.6	3.0	3.5	18 .3
30...	109	90	7.5	17.0	40	0	10	3.7	4.3	18 .3
JUL 20...	.34	285	8.5	17.0	130	0	34	12	15	19 .6
AUG 18...	.15	510	8.2	19.0	250	26	62	23	21	15 .6
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTANTS, DIS-SOLVED (MG/L AS) TUBENTS, DIS-SOLVED (MG/L AS) PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	
MAY 31...	2.3	40	11	4.1	.10	13	77	.10	--	2.00
JUN 09...	1.2	45	7.4	.50	<.10	14	67	.09	52	1.40
20...	1.2	41	9.4	1.0	<.10	15	67	.09	34	.800
30...	1.2	47	8.7	.70	<.10	17	74	.10	22	.120
JUL 20...	5.3	134	33	4.8	.10	20	200	.28	.19	<.100
AUG 18...	3.6	224	74	5.0	.20	14	340	.46	.14	<.100

Table 17.--Onsite measurements and major dissolved constituent data for station 385506107161400, Grouse Spring Creek near Marcelling Mountain (site 10), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS MG)	MAGNESIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, PERCENT TITION (AS NA)	SODIUM, RATIO
JUN 10...	14	30	7.9	10.5	20	0	6.0	1.2	7.9	46	.8
21...	4.8	55	7.8	14.5	26	0	7.8	1.7	4.4	26	.4
JUL 14...	1.5	49	8.4	20.0	23	0	7.4	1.2	2.8	20	.3
AUG 04...	.32	127	8.2	19.5	59	0	19	2.8	5.9	18	.3
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POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (TONS PER AC-Ft)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)
JUN 10...	.50	27	<5.0	.50	<.10	13	--	--	--	<.100	
21...	.60	34	<5.0	.70	.10	15	63	.09	.82	.160	
JUL 14...	.60	30	<5.0	.40	<.10	9.1	--	--	--	<.100	
AUG 04...	1.0	69	<5.0	.50	<.10	12	--	--	--	<.100	

Table 18.--Onsite measurements and major dissolved constituent data for station 385506107161400, Grouse Spring Creek near Marcelling Mountain (site 10), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-NESS SODIUM, DIS-SOLVED (MG/L AS MG)	MAGNE-NESS SODIUM, DIS-SOLVED (MG/L AS NA)	HARD-NESS		NITRO-	
										MAGNE-NESS SODIUM, DIS-SOLVED (MG/L AS MG)	MAGNE-NESS SODIUM, DIS-SOLVED (MG/L AS NA)	SOLVED (TONS PER DAY)	SOLVED (TONS PER DAY)
JUN 06...	57	42	7.5	11.5	19	0	6.0	.90	4.7	34	.5		
22...	36	38	7.8	11.0	17	0	5.0	1.0	2.3	23	.3		
JUL 05...	9.9	68	7.9	14.0	32	0	9.5	2.1	3.8	20	.3		
18...	5.8	85	8.1	16.0	37	0	11	2.3	4.1	19	.3		
AUG 02...	4.5	85	7.7	13.0	39	0	12	2.2	4.0	18	.3		
15...	2.1	92	7.7	15.5	39	0	12	2.3	4.3	19	.3		
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)		
JUN 06...	.90	26	4.5	1.5	<.10	11	45	.06	--	1.60			
22...	.50	25	3.3	.40	<.10	12	40	.05	3.9	.100			
JUL 05...	.50	42	3.5	1.0	<.10	14	60	.08	1.6	.280			
18...	.50	48	3.9	1.0	.10	13	65	.09	1.0	.290			
AUG 02...	1.3	44	3.3	1.2	.10	12	62	.09	.76	.320			
15...	.50	49	<5.0	1.1	.20	12	--	--	--	.140			

Table 19.--Onsite measurements and major dissolved constituent data for station 385532107310400, Lower Hubbard Creek near Bowie (site 11), water year October 1981 to 1982

STREAM-FLOW, INSTAN-TANEOUS DATE (FT <sup>3</sup> /S)	SPECIFIC COND- DUCT- ANCE (µS/CM)	PH (STAND- ARD) UNITS)	TEMPER- ATURE (°C) UNITS)	HARD- NESS (MG/L) AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L) AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L) AS CACO <sub>3</sub> )	MAGNE- SIUM, DIS- SOLVED (MG/L) AS NA)	SODIUM AD- SORP- TION RATIO
MAY 20...	290	E	120	8.2	6.0	57	0	16
JUN							4.1	9.6
09...	95		89	7.8	12.0	46	0	13
23...	90	E	85	9.2	9.5	53	5	16
JUL							3.2	5.3
16...	2.2		332	9.1	21.0	120	0	33
AUG							8.2	23
06...	.50		495	7.8	18.0	180	13	47
19...	1.9		307	8.2	24.0	110	0	31
							8.5	20
								26
								27
								.9
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTI- TUENTS, (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (TONS PER DAY)
MAY 20...	1.1	61	7.0	.90	.20	13	88	.12
JUN								--
09...	.80	51	6.0	.90	.10	13	75	.10
23...	1.0	48	10	1.0	.20	13	78	.11
JUL								--
16...	1.9	130	28	3.1	.20	14	190	.19
AUG								<.100
06...	2.2	170	58	4.0	.20	12	270	.37
19...	2.0	133	23	2.7	.20	12	180	.24
								.92
								<.100

Table 20.-Onsite measurements and major dissolved constituent data for station 385532107310400, Lower Hubbard Creek near Bowie (site 11), Water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, SILICATE, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS MG)	PERCENT SODIUM	SODIUM-ADSORPTION RATIO	
JUN 02...	422	110	8.0	11.0	51	0	15	3.3	9.9	29	.6	
09...	242	125	8.0	11.0	54	0	15	4.0	6.8	21	.4	
20...	261	90	8.1	16.0	45	0	13	3.0	10	32	.7	
30...	200	100	7.9	15.0	43	0	12	3.1	5.9	23	.4	
JUL 20...	64	190	8.2	15.0	59	0	17	4.0	9.6	26	.6	
AUG 03...	7.8	330	8.2	22.5	120	0	36	8.0	33	36	1	
17...	4.5	360	8.3	25.0	130	0	37	8.4	40	40	2	
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POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> (MG/L AS N)	DIS-SOLVED (TONS PER DAY)	DIS-SOLVED (TONS PER DAY)
JUN 02...	1.3	57	13	.90	<.10	12	90	.12	103	.110		
09...	1.3	60	13	1.0	<.10	12	89	.12	58	.370		
20...	1.0	46	18	3.6	<.10	12	89	.12	62	.340		
30...	1.0	43	10	1.1	<.10	13	72	.10	39	.180		
JUL 20...	1.6	74	12	1.5	<.10	13	100	.14	18	<.100		
AUG 03...	2.2	170	20	3.2	.20	15	220	.30	4.6	<.100		
17...	2.6	188	22	3.8	.30	14	240	.33	2.9	<.100		

Table 21.--Onsite measurements and major dissolved constituent data for station 385534107201900, Lower Coal Creek near Somerset (site 12), Water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS			MAGNETISM			SODIUM-ADSORPTION RATIO		
					CATIONIC NONCARBONATE (MG/L AS CACO <sub>3</sub> )	ANIONIC BONATE (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS CA)	CALCIUM DIS-SOLVED (MG/L AS MG)	SILICON DIS-SOLVED (MG/L AS NA)	SOLVED (MG/L AS MG)	PERCENT SODIUM AS NA)	SODIUM, DIS-SOLVED (MG/L AS MG)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)
JUN 17...	--	58	7.3	11.5	30	0	9.0	1.9	3.4	19	.3		
22...	--	55	7.5	10.0	33	0	9.7	2.1	4.2	22	.3		
JUL 14...	--	65	8.6	17.0	30	0	9.2	1.8	3.9	21	.3		
AUG 03...	79	77	7.7	19.0	40	0	12	2.4	5.2	22	.4		
17...	61	96	8.1	16.5	40	0	12	2.4	5.1	22	.4		
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF DIS-SOLVED (TONS AC-FT)	SOLIDS, SUM OF DIS-SOLVED (TONS AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub>		
JUN 17...	.50	35	7.0	.80	.10	10	54	.07	--	--	.200		
22...	.40	35	8.0	.60	<.10	11	57	.08	--	--	.160		
JUL 14...	.50	37	<5.0	.60	<.10	11	--	--	--	--	<.100		
AUG 03...	.50	45	6.0	.60	<.10	12	66	.09	14	<.100			
17...	.40	40	6.0	.80	<.10	12	63	.09	10	<.100			

Table 22.--Onsite measurements and major dissolved constituent data for station 385534107201900, Lower Coal Creek near Somerset (site 12),  
water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE ( $^{\circ}$ C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS MG)	SODIUM-ADSORPTION RATIO
JUN 02...	--	100	8.2	6.0	48	0	14	3.1	8.9	.6
07...	978	95	7.8	7.0	42	0	12	2.9	6.2	.4
23...	8.0	70	7.9	--	31	0	9.2	1.9	3.3	.3
JUL 07...	536	70	8.3	12.0	29	0	8.4	1.9	3.2	.3
19...	267	75	8.0	14.0	36	2	11	2.1	4.1	.3
AUG 01...	145	92	7.8	18.0	40	0	12	2.5	4.7	.3
17...	84	110	7.8	13.5	47	0	14	3.0	5.4	.4
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POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, TENTS, DIS-SOLVED (MG/L AS SI0 <sub>2</sub> )	CONSTI-TUENTS, DIS-SOLVED (MG/L AS SI0 <sub>2</sub> )	SOLIDS, SUM OF TENTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)
JUN 02...	1.0	57	12	3.4	.10	9.7	86	.12	--	1.10
07...	.60	46	11	.60	<.10	10	71	.10	188	.720
23...	.50	33	6.5	.40	<.10	10	52	.07	1.1	.290
JUL 07...	.40	32	6.3	.50	<.10	10	50	.07	72	.660
19...	.50	34	6.4	.40	<.10	11	56	.08	40	1.20
AUG 01...	1.0	43	6.8	.80	.10	12	66	.09	26	.790
17...	.80	54	6.0	.80	.10	12	74	.10	17	.140

Table 23.--Onsite measurements and major dissolved constituent data for station 385538107202400, Lower Anthracite Creek near Somerset (site 13), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L) AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L) AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L) AS CACO <sub>3</sub> )	SODIUM, DIS-SOLVED (MG/L) AS NA)	MAGNE-NESS PERCENT SODIUM	SODIUM-ADSORPTION RATIO
APR 15....	497	56	8.4	6.5	38	0	12	2.0	4.8	.4
MAY 06....	941	56	7.7	8.0	31	0	10	1.4	3.1	.3
20....	543	65	8.2	7.5	34	0	11	1.6	5.3	.4
JUN 10....	1010	44	8.0	11.0	26	0	8.5	1.1	3.2	.2
22....	926	39	7.1	7.0	24	0	7.9	1.1	2.7	.3
AUG 17....	75	105	8.2	17.5	46	5	15	2.1	3.1	.2
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POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SUM OF CONSTITUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	
APR 15....	1.0	40	6.0	1.8	<.10	9.3	61	.08	82	.360
MAY 06....	.80	33	6.0	.60	<.10	8.7	51	.07	128	.100
20....	.60	38	6.0	1.3	.20	9.5	58	.08	85	.150
JUN 10....	.50	27	7.0	1.4	.20	6.9	45	.06	123	.250
22....	.40	25	9.0	.70	.10	6.4	43	.06	108	.160
AUG 17....	.60	41	10	.60	<.10	7.2	63	.09	13	<.100

Table 24.--Onsite measurements and major dissolved constituent data for station 385538107202400, Lower Anthracite Creek near Somerset (site 13), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	MAGNESIUM, SODIUM, DISOLVED (MG/L AS NA)	SODIUM, ADSORPTION RATIO	
JUN 02...	1510	60	8.0	6.0	29	0	9.5	1.2	4.6	
07...	1130	65	7.8	8.0	30	0	9.9	1.3	2.2	
23...	1480	51	7.8	10.0	23	0	7.6	1.0	2.0	
JUL 07...	1010	52	8.3	13.5	23	0	7.5	1.0	1.5	
19...	455	58	8.0	14.5	29	0	9.6	1.1	1.8	
AUG 01...	250	78	7.7	20.0	36	2	12	1.4	2.0	
17...	111	110	7.7	13.5	49	0	16	2.1	2.7	
<hr/>										
POTASSIUM, DISOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DISOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DISOLVED (MG/L AS CL)	FLUORIDE, DISOLVED (MG/L AS F)	SILICA, TUNETS, DISOLVED (MG/L AS SIO <sub>2</sub> )	CONSTANTS, TUENTS, DISOLVED (MG/L AS SIO <sub>2</sub> )	SOLIDS, SUM OF SOLVED (TONS PER AC-FT)	SOLIDS, DISOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DISOLVED (TONS PER DAY)	
JUN 02...	.60	37	7.4	2.7	<.10	6.8	55	.07	225	
07...	.50	31	6.9	.50	<.10	6.9	47	.06	143	
23...	.50	26	5.9	.40	<.10	6.6	40	.05	159	
JUL 07...	.40	24	6.8	.40	<.10	5.6	38	.05	103	
19...	.40	28	7.2	.20	<.10	5.7	43	.06	53	
AUG 01...	1.3	34	9.4	.90	<.10	5.3	53	.07	36	
17...	.60	48	10	.60	.10	6.5	67	.09	<100	
									<100	

Table 25.--Onsite measurements and major dissolved constituent data for station 385626107212000, Muddy Creek below Paonia Reservoir (site 14), water year October 1981 to September 1982

DATE	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD- NESS (MG/L AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA)	MAGNE- NESS (MG/L AS MG)	SODIUM AD- SORP- TION RATIO
APR 15....	708	--	--	--	97	0	30	5.3	13	22
MAY 05....	900	179	8.2	7.0	74	0	23	4.0	7.6	18
20....	31	180	8.3	7.0	77	0	24	4.2	11	23
JUN 09....	525	133	8.8	12.5	68	0	21	3.7	6.4	17
17....	375	107	8.2	16.0	67	0	21	3.5	5.2	14
22....	385	157	7.8	15.5	70	0	22	3.7	6.4	16
AUG 02....	48	214	8.7	20.5	95	0	30	4.9	8.0	15
19....	328	134	8.2	9.5	69	0	22	3.4	4.7	13

Table 25.--Onsite measurements and major dissolved constituent data for station 385626107212000, Muddy Creek below Paonia Reservoir (site 14), water year October 1981 to September 1982--Continued

	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLID, SUM OF CONSTI-TUENTS, DIS-SOLVED (TONS PER AC-FT)	SOLID, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (TONS PER DAY)
APR									
15....	1.8	108	6.0	2.8	.20	10	130	.18	257
MAY									.530
05....	1.3	87	6.0	2.0	.20	10	110	.14	258
20....	1.0	86	6.0	1.1	.20	11	110	.15	9.2
JUN									<.100
09....	1.0	76	5.0	1.7	.20	11	96	.13	135
17....	1.0	75	<5.0	1.1	.20	9.7	--	--	.310
22....	1.0	78	10	1.1	.20	10	100	.14	--
AUG									.270
02....	1.1	103	6.0	1.1	.10	10	120	.17	.740
19....	.80	77	7.0	.90	.10	9.3	94	.13	.260
									<.100
									<.100

Table 26.--Onsite measurements and major dissolved constituent data for station 385626107212000,  
 Muddy Creek below Paonia Reservoir (site 14), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON- DUCTANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD-NESS			MAGNE- SIMUM,			SODIUM- ADSORP- TION RATIO		
					HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CACO <sub>3</sub> )	DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS CACO <sub>3</sub> )	PERCENT SODIUM (AS Na)	SODIUM, SOLVED (MG/L AS CACO <sub>3</sub> )	SODIUM, SOLVED (MG/L AS CACO <sub>3</sub> )
JUN 02...	2520	140	8.0	8.0	69	0	22	3.5	6.6	17	.4		
09...	1630	170	8.0	11.0	70	0	23	3.0	4.9	13	.3		
22...	1170	130	--	13.0	60	0	19	3.1	4.5	14	.3		
30...	1090	132	7.6	14.0	66	0	21	3.2	4.6	13	.3		
JUL 19...	191	145	8.3	20.5	72	0	23	3.6	5.0	13	.3		
AUG 02...	191	190	8.5	21.5	94	0	30	4.7	7.1	14	.3		
17...	85	215	8.2	23.5	99	0	31	5.3	8.7	16	.4		
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SILICATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (TONS AC-FT)	SOLIDS, SUM OF SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS AC-FT)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)		
JUN 02...	1.2	79	7.5	1.6	.10	9.1	99	.13	676	.290			
09...	1.0	74	6.0	1.2	<.10	9.5	93	.13	410	.300			
22...	.90	69	5.6	.80	<.10	9.1	85	.11	267	.200			
30...	1.2	71	5.4	1.7	<.10	8.6	88	.12	260	.310			
JUL 19...	.90	78	5.5	.90	.10	9.0	95	.13	49	<.100			
AUG 02...	1.6	102	5.1	1.3	.10	10	120	.16	62	.630			
17...	1.2	117	6.0	1.4	.20	11	130	.18	31	.220			

Table 27.--Onsite measurements and major dissolved constituent data for station 385712107162600, Upper Anthracite Creek near Somerset (site 15), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-INANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS			MAGNE- SUM, DIS-			SODIUM-ADSORPTION RATIO
					HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS CACO <sub>3</sub> )	
APR 15...	315	91	--	6.5	40	0	13	1.8	3.8	17	.3
MAY 06...	757	61	6.9	6.0	33	0	11	1.3	4.2	21	.3
JUN 10...	970	75	7.8	9.0	27	0	9.1	.99	2.1	14	.2
17...	230	29	7.5	10.0	27	0	9.3	1.0	2.3	15	.2
21...	778	48	7.2	9.5	26	0	8.9	.95	2.3	16	.2
AUG 17...	74	109	7.7	15.0	49	8	16	2.1	2.7	11	.2
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB SOLVED (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SUM OF TTONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)
APR 15...	.90	39	6.0	1.6	<.10	9.1	60	.08	51	.290	
MAY 06...	.70	37	6.0	3.3	.20	7.9	57	.08	116	.310	
JUN 10...	.30	27	7.0	.70	.10	5.9	42	.06	111	.240	
17...	.40	28	7.0	.90	.10	5.8	44	.06	27	.320	
21...	.30	27	8.0	1.1	.10	5.6	43	.06	91	.380	
AUG 17...	.50	41	11	.50	<.10	6.1	63	.09	13	<.100	

Table 28.--Onsite measurements and major dissolved constituent data for station 385712107162600, Upper Anthracite Creek near Somerset (site 15), water year October 1982 to September 1983

DATE	(FT <sup>3</sup> /S)	STREAM-FLOW, INSTAN-TANEOUS	SPE-CIFIC CON-DUCT-ANCE	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-NESSIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS MG)	SODIUM AD-SORP-TION RATIO
JUN 07...	1140	65	7.7	11.5	32	1	11	1.2	2.3	13	.2
22...	1650	58	7.9	16.0	27	0	8.9	1.1	4.1	25	.4
JUL 05...	936	56	7.7	14.0	27	1	9.0	1.1	2.2	15	.2
18...	369	62	7.8	17.0	30	2	10	1.2	1.6	10	.1
AUG 02...	203	85	7.7	14.5	38	3	13	1.4	2.0	10	.1
15...	99	110	8.0	17.5	48	2	16	2.0	2.5	10	.2
<hr/>											
POTAS-SIUM,	ALKALINITY	SULFATE	CHLO-RIDE,	FLUO-RIDE,	SILICA,	SOLIDS, SUM OF	SOLIDS, CONSTI-TUENTS,	SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub>	DIS-SOLVED (TONS PER DAY)
DIS-LAB SOLVED (MG/L AS K)	DIS-LAB (MG/L AS K)	DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS SO <sub>4</sub> )	SOLVED (MG/L AS F)	SOLVED (MG/L AS SI02)						
JUN 07...	.50	31	7.0	.40	<.10	7.7	49	.07	150	.230	
22...	.50	27	6.9	.30	<.10	5.9	44	.06	196	.150	
JUL 05...	.50	26	8.1	.40	<.10	5.6	43	.06	108	<.100	
18...	.40	28	8.1	.20	<.10	5.0	43	.06	43	.160	
AUG 02...	1.4	35	9.6	1.1	<.10	5.3	55	.07	30	<.100	
15...	.60	46	12	.50	.10	2.7	64	.09	17	<.100	

Table 29.--Onsite measurements and major dissolved constituent data for station 385741107315100, Upper Hubbard Creek near Bowie (site 16), Water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu\text{S}/\text{cm}$ )	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM SOLVED (MG/L AS CA)	MAGNESIUM SOLVED (MG/L AS NA)	ADSORPTION- RATION SODIUM RATIO	
MAY 20...	172	113	7.6	5.5	56	0	16	3.8	6.4	20 .4
JUN 09...	98	80	8.0	10.0	48	--	14	3.2	8.8	28 .6
23...	87	73	8.9	9.5	41	0	12	2.8	3.4	15 .2
JUL 16...	5.6	233	8.9	18.5	88	0	26	5.6	13	24 .6
AUG 06...	2.5	265	8.2	20.0	100	0	30	6.6	19	28 .9
19...	4.6	208	8.2	20.5	88	0	26	5.5	12	23 .6
<hr/>										
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTANTS, DIS-SOLVED (MG/L AS) TURNTS, DIS-SOLVED (MG/L AS) SI02)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	
MAY 20...	.90	58	8.0	1.0	.20	13	84	.11	39	<.100
JUN 09...	1.0	<7.0	<5.0	<.10	.10	13	--	--	16	-- 780
23...	.90	44	10	<.10	.10	13	69	.09	16	<.100
JUL 16...	1.6	106	12	1.4	.10	15	140	.19	2.1	<.100
AUG 06...	1.9	134	11	1.8	.20	13	160	.22	1.1	<.100
19...	1.7	96	10	1.4	.10	13	130	.17	1.6	<.100

Table 30.--Onsite measurements and major dissolved constituent data for station 385741107315100, Upper Hubbard Creek near Bowie (site 16), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT- ANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD- NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	MAGNE- NESS (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	SODIUM PERCENT (MG/L AS CACO <sub>3</sub> )	SODIUM RATIO	SODIUM AD-SORP- TION RATION
JUN												
09...	240	110	7.9	6.0	50	0	15	3.0	4.8	17	.3	
20...	237	76	7.7	14.0	39	0	11	2.8	6.4	26	.5	
JUL												
20...	61	170	8.1	15.0	55	0	16	3.6	5.6	18	.3	
AUG												
03...	8.8	230	8.1	19.0	120	0	34	7.4	20	27	.8	
17...	4.7	300	8.5	22.0	120	0	36	7.8	22	28	.9	
POTAS-SIUM, DIS-SOLVED (MG/L AS K)		ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	CHLO- RIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, TUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, CONSTI-TUENTS, DIS-SOLVED (TONS PER AC-FT)	SUM OF SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)		
DATE												
JUN												
09...	1.3	56	12	1.0	<.10	12	83	.11	54	.170		
20...	1.0	40	10	.90	<.10	93	150	.20	96	.620		
JUL												
20...	1.4	62	9.6	1.0	<.10	14	89	.12	15	.120		
AUG												
03...	2.2	141	18	2.1	.20	14	180	.25	4.3	<.100		
17...	2.7	154	17	2.7	.20	14	190	.26	2.5	<.100		

Table 31.--Onsite measurements and major dissolved constituent data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), water year October 1981 to September 1982

	SPE-CIFIC CONDUCTANCE ( $\mu\text{S}/\text{cm}$ )	PH (STAND-ARD UNITS)	TEMPER-ATURE ( $^{\circ}\text{C}$ )	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNE-TION PERCENT SODIUM RATIO
DATE								
APR 13...	375	190	8.7	9.0	93	0	29	4.9
MAY 05...	1070	154	7.8	6.5	67	0	21	3.6
19...	766	180	8.5	9.0	79	0	25	4.1
JUN 10...	715	136	8.3	13.0	70	0	22	3.7
17...	538	180	7.8	14.0	76	0	24	3.9
24...	455	200	8.6	13.0	92	0	29	4.7
AUG 02...	60	285	8.2	19.5	120	0	38	6.6
19...	58	305	8.2	18.5	140	0	42	7.6
							10 11	15 15

Table 31.--Onsite measurements and major dissolved constituent data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), water year October 1981 to September 1982--Continued

	POTAS- SIUM,	ALKA- LINITY	SULFATE	CHLO- RIDE,	FLUO- RIDE,	SILICA,	SOLIDS, SUM OF CONSTI- TUENTS,	SOLIDS, DIS- SOLVED	SOLIDS, DIS- SOLVED	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub>
DATE	DIS- SOLVED (MG/L) (MG/L AS K)	DIS- SOLVED (MG/L AS CACO <sub>3</sub> )	SOLVED (MG/L AS SO <sub>4</sub> )	SOLVED (MG/L AS CL)	SOLVED (MG/L AS F)	SOLVED (MG/L AS SI02)	SOLVED (TONS PER AC-FT)	SOLVED (TONS PER AC-FT)	SOLVED (TONS PER AC-FT)	DIS- SOLVED (MG/L AS N)
APR										
13...	2.2	102	6.0	1.6	.10	11	130	.17	127	.200
MAY										
05...	1.2	77	6.0	2.3	.20	10	97	.13	279	.440
19...	1.0	87	7.0	1.0	.20	11	110	.15	222	<.100
JUN										
10...	'90	76	6.0	1.8	.20	10	96	.13	186	3.50
17...	1.0	89	<5.0	1.3	.20	9.7	--	--	--	<.100
24...	.90	97	9.0	1.0	.20	11	120	.16	149	.260
AUG										
02...	1.4	126	6.0	1.4	.20	14	150	.21	25	<.100
19...	1.5	161	7.0	1.5	.20	14	180	.25	28	<.100

Table 32.--Onsite measurements and major dissolved constituent data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), Water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE ( $^{\circ}$ C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	SODIUM, SULFUR, DIS-SOLVED (MG/L AS NA)	MAGNE-NESS (MG/L AS MG)	SODIUM, AD-SORP-TION (MG/L AS MG)	PERCENT SODIUM RATIO
JUN 01...	2500	140	8.1	12.0	66	0	21	3.4	7.1	18	.4
08...	2010	160	8.1	11.0	71	0	23	3.3	6.7	17	.4
22...	1430	120	8.2	15.0	60	0	19	3.0	3.9	12	.2
30...	1090	128	7.6	9.5	67	0	21	3.5	4.9	14	.3
JUL 21...	214	220	8.2	17.0	110	0	36	5.7	7.5	12	.3
AUG 02...	150	235	8.3	20.0	120	0	37	6.1	11	17	.5
16...	98	240	8.4	15.5	120	0	38	6.1	9.7	15	.4
JUN											
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONST-TUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SUM OF SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub>	
01...	1.3	80	6.8	1.6	.20	9.6	99	.13	670	.260	
08...	.90	75	6.7	1.0	<.10	9.6	96	.13	523	.740	
22...	.70	62	5.8	.70	<.10	8.9	79	.11	306	1.00	
30...	.90	75	5.2	.70	<.10	9.3	91	.12	267	.230	
JUL											
21...	1.3	124	6.1	1.4	.10	11	140	.20	83	.210	
AUG											
02...	1.7	132	5.0	1.7	.20	12	150	.21	62	.290	
16...	1.3	135	6.0	8.6	.20	12	160	.22	43	<.100	

Table 33.--Onsite measurements and major dissolved constituent data for station 390000107212700, Lower West Muddy Creek near Paonia Reservoir (site 18), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	HARD-NESS			MAGNE-NESS			SODIUM-AD-SORP-TION RATIO		
					HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNE-NESS (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)
JUN 11...	--	208	8.9	11.5	100	0	31	5.4	6.4	12	.3		
JUL 24...	55	282	8.5	10.5	130	0	41	7.0	7.5	11	.3		
JUL 13...	27	245	8.9	21.0	120	0	39	6.1	6.4	10	.3		
AUG 02...	5.7	374	8.5	23.0	160	1	49	9.9	11	13	.4		
AUG 19...	6.6	373	8.2	17.5	180	0	56	9.0	9.1	10	.3		
<hr/>													
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	CHLO-RIDE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, TUENTS, (MG/L AS SI0 <sub>2</sub> )	SOLIDS, SUM OF CONSTI-TUENTS, (MG/L AS SI0 <sub>2</sub> )	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub>		
JUN 11...	1.0	99	7.0	1.4	.20	11	120	.17	--	--	.160		
JUL 24...	1.1	132	10	1.0	.20	12	160	.22	24	24	.230		
JUL 13...	1.1	127	8.0	2.4	.20	11	150	.20	11	11	.100		
AUG 02...	2.0	162	13	1.6	.20	10	190	.26	3.0	<.100			
AUG 19...	1.5	188	8.0	1.3	.20	11	210	.28	3.7	<.100			

Table 34.--Onsite measurements and major dissolved constituent data for station 390000107212700, Lower West Muddy Creek near Paonia Reservoir (site 18), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE ( $^{\circ}$ C)	HARD-NESS (MG/L AS CACO <sub>3</sub> )	NONCAR-BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNE-NESS SODIUM, ADSORP-TION RATIO	
JUN 01...	893	150	8.2	9.0	74	0	23	4.1	6.0	.3
08...	586	145	8.1	10.5	71	0	22	4.0	7.7	.4
21...	498	145	8.4	16.5	68	0	21	3.8	6.0	.3
JUL 06...	263	195	7.8	18.0	71	0	22	3.9	3.0	.2
21...	68	250	8.2	17.5	140	0	44	7.1	6.0	.2
AUG 03...	34	300	8.1	15.5	160	0	50	8.6	7.9	.3
16...	18	340	8.4	17.5	170	0	53	9.3	9.2	.3
JUN										
POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLO-ride, DIS-SOLVED (MG/L AS CL)	FLUO-ride, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	
01...	1.9	81	8.7	1.6	<.10	10	100	.14	252	1.40
08...	1.1	75	8.5	.80	<.10	10	99	.13	157	2.00
21...	1.0	77	7.9	.70	<.10	10	97	.13	130	<.100
JUL										
06...	1.0	75	7.9	.80	<.10	9.1	93	.13	66	.150
21...	1.6	149	7.6	1.0	.10	11	170	.23	31	<.100
AUG										
03...	2.0	182	5.6	1.5	.20	12	200	.27	18	<.100
16...	1.5	194	7.0	1.7	.20	12	210	.29	10	<.100

Table 35.--Onsite measurements and major dissolved constituent data for station 390620107241900, East Muddy Creek near Ragged Mountain (site 19), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON- DUCTANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	HARD- NESS (MG/L) AS CACO <sub>3</sub> )	NONCAR- BONATE (MG/L) AS CACO <sub>3</sub> )	CALCIUM (MG/L) AS CACO <sub>3</sub> )	MAGNE- SIUM, SOLVED (MG/L) AS CACO <sub>3</sub> )	SODIUM, SOLVED (MG/L) AS NA)	SODIUM- ADSORP- TION RATIO
MAY 05...	513	164	8.4	5.5	71	0	.23	3.3	8.8	21
JUN 11...	85 E	129	7.9	7.5	62	0	.20	3.0	5.5	16
24...	--	175	8.2	14.5	78	0	.25	3.8	5.4	13
JUL 13...	25	261	8.8	19.0	130	0	.42	6.1	7.4	11
AUG 03...	12	406	8.0	19.5	180	0	.57	9.5	16	.5
18...	12	351	8.1	21.0	150	0	.47	8.9	18	20
MAY 05...	.80	78	6.0	1.0	.10	.10	.7	.99	.13	137
JUN 11...	.80	71	<5.0	1.2	.20	8.0	--	--	--	.160
24...	.80	87	8.0	.90	.10	8.2	100	.14	--	.210
JUL 13...	1.0	141	<5.0	1.1	.10	11	--	--	--	.160
AUG 03...	1.9	202	11	1.9	.20	14	230	.32	7.5	<.100
18...	2.4	184	5.0	1.6	.20	13	210	.28	6.7	.120

Table 36.--Onsite measurements and major dissolved constituent data for station 390620107241900, East Muddy Creek near Ragged Mountain (site 19), water year October 1982 to September 1983

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE BONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM SOLVED (MG/L AS CA)	SILIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNETION PERCENT SODIUM RATIO	SODIUM-ADSORPTION RATIO
DATE										
JUN 01...	806	140	8.0	7.0	68	0	22	3.2	7.5	.4
08...	643	130	8.3	9.5	65	3	21	3.0	6.8	.4
21...	491	110	8.5	12.5	56	0	18	2.6	4.3	.3
JUL 06...	274	180	7.8	15.0	65	0	21	3.1	4.1	.2
21...	58	260	8.1	14.0	120	0	36	6.6	18	.8
AUG 03...	45	315	8.3	15.5	160	0	50	7.9	15	.5
16...	28	350	8.3	17.5	170	0	53	8.8	13	.5
JUN										
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI0 <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (MG/L AS)	SOLIDS, SUM OF TUENTS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> AS N)
01...	1.4	84	4.8	2.0	.10	8.5	100	.14	218	.920
08...	1.0	62	4.8	.90	<.10	8.6	84	.11	145	4.10
21...	.80	62	4.6	.70	<.10	8.0	76	.10	101	.180
JUL										
06...	.80	73	4.9	.80	<.10	7.4	86	.12	64	.250
21...	2.0	152	5.8	1.8	.20	10	170	.23	27	.420
AUG										
03...	1.9	179	4.4	2.0	.20	11	200	.27	24	.330
16...	1.7	195	5.0	2.2	.20	12	210	.29	16	<.100

Table 37.--Onsite measurements and major dissolved constituent data for station 390658107312500, West Muddy Creek near West Muddy Creek Ranger Station (site 20), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS CACO <sub>3</sub> )	SODIUM, DIS-SOLVED (MG/L AS NA)	MAGNESIUM, DIS-SOLVED (MG/L AS CA)	SODIUM ADSORPTION RATIO
MAY 04...	279	123	8.1	6.5	74	0	23	4.0	4.4	.2
19...	108	166	10.5	7.0	84	2	26	4.6	5.9	.3
JUN 08...	59	215	7.8	13.5	97	0	30	5.4	6.8	.3
25...	31	55	7.8	14.5	130	2	41	7.0	7.1	.3
JUL 13...	7.3	313	9.0	15.0	160	0	51	8.5	6.2	.2
AUG 03...	5.2	351	8.5	16.5	170	2	51	9.5	7.7	.3
18...	8.5	282	8.8	17.0	150	0	45	8.2	6.3	.2
<hr/>										
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L AS) PER AC-FTR	SOLIDS, SOLVED (TONS PER DAY)	SOLIDS, SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub>	
MAY 04...	1.0	78	7.0	2.2	.20	9.9	99	.13	74	.280
19...	.70	82	7.0	1.1	.30	8.1	100	.14	30	<.100
JUN 08...	.80	97	7.0	.80	.10	10	120	.16	19	<.100
25...	1.0	129	11	.90	.20	11	160	.21	13	.240
JUL 13...	1.2	163	9.0	.70	.10	11	190	.25	3.7	.100
AUG 03...	1.3	165	10	.80	.10	11	190	.26	2.7	<.100
18...	1.1	152	8.0	.80	.10	11	170	.23	3.9	<.100

Table 38.--Onsite measurements and major dissolved constituent data for station 390658107312500, West Muddy Creek near West Muddy Creek Ranger Station (site 20), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	HARDNESS			MAGNESIUM			SODIUM		
					HARDNESS (MG/L AS CACO <sub>3</sub> )	NONCARBONATE (MG/L AS CACO <sub>3</sub> )	CALCIUM (MG/L AS CA)	SILICON, SOLVED (MG/L AS MG)	SOLVED (MG/L AS NA)	SODIUM, SOLVED (MG/L AS NA)	ADSORPTION RATIO	SORPTION TION	PERCENT SODIUM
JUN 08...	204	150	8.3	6.5	79	0	25	4.0	5.6	13	.3	.3	
21...	165	160	8.5	7.0	81	0	25	4.5	5.7	13	.3	.3	
JUL 06...	435	220	8.5	12.0	120	0	39	6.5	5.8	9	.2	.2	
20...	24	300	8.5	20.0	150	0	48	7.6	6.2	8	.2	.2	
AUG 03...	15	275	8.3	18.0	150	0	49	7.8	6.9	9	.3	.3	
16...	7.7	310	8.4	21.5	170	0	54	8.8	6.4	7	.2	.2	
<hr/>													
POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	SILICATE DIS-SOLVED (MG/L AS SO <sub>4</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	CONSTITUENTS, DIS-SOLVED (MG/L AS)	SOLIDS, SUM OF TURNTS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N)	
JUN 08...	1.0	83	7.7	.70	<.10	10	100	.14	57	<.100			
21...	.90	88	9.5	.70	<.10	10	110	.15	49	.100			
JUL 06...	1.1	124	10	.80	<.10	11	150	.20	175	.690			
20...	1.3	155	8.2	1.0	.10	11	180	.24	11	.180			
AUG 03...	1.4	159	5.6	.70	.10	11	180	.24	7.2	.280			
16...	1.3	180	7.0	1.1	.20	11	200	.27	4.1	<.100			

Table 39.--Onsite measurements, trace constituents, and sediment data for station 09129800, Clear Fork near Ragged Mountain (site 1), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-INUM,			ARSENIC TOTAL,			CADMIUM TOTAL,		
					PHOS-PHORUS, TOTAL (MG/L AS P)	DIS-ERABLE TOTAL (µG/L AS AL)	DIS-SOLVED TOTAL (µG/L AS AL)	ARSENIC TOTAL, SOLVED (µG/L AS AS)	DIS-ERABLE (µG/L AS AS)	CADMIUM TOTAL, SOLVED (µG/L AS CD)	ARSENIC TOTAL, SOLVED (µG/L AS AS)	DIS-ERABLE (µG/L AS AS)	CADMIUM TOTAL, SOLVED (µG/L AS CD)
MAY 19...	188	126	8.6	6.5	.030	970	80	<1	<1	<1	4	3	4
JUN 08...	148	92	8.2	12.0	<.005	1000	50	<1	<1	<1	<1	2	<1
JUL 12...	17	139	8.6	18.5	.028	390	30	<1	<1	<1	<1	5	2
AUG 03...	4.2	209	8.0	17.0	--	--	--	--	--	--	--	--	--
AUG 18...	3.4	212	8.4	21.5	--	--	--	--	--	--	--	--	--
 CHRO-MIUM, CHRO-MIUM, TOTAL DIS-SOLVED RECOV-ERABLE (µG/L AS CR) DATE													
MAY 19...	3	<1	<1	<1	3	1	810	54	3	4			
JUN 08...	3	<1	2	<1	3	2	890	35	2	<1			
JUL 12...	7	<1	<1	<1	3	1	260	21	5	2			
AUG 03...	--	--	--	--	--	--	--	--	--	--			
AUG 18...	--	--	--	--	--	--	--	--	--	--			

Table 39.--Onsite measurements, trace constituents, and sediment data for station 09129800, Clear Fork near Ragged Mountain (site 1), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	MERCURY DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED	SEDI- MENT, DIS- CHARGE, SUS- PENDED
MAY 19... JUN 08... JUL 12... AUG 03... 18...	40 40 10 7 -- -- --	5 4 1.0 -- -- -- --	.2 .4 .3 -- -- -- --	<.1 .2 .3 -- -- -- --	<1 <1 <1 -- -- -- --	20 30 20 -- -- -- --	14 19 4 -- -- -- --	77 39 14 -- -- -- --	39 16 .64 .05 .06

Table 40.--Onsite measurements, trace constituents, and sediment data for station 09129800, Clear Fork near Ragged Mountain (site 1), water year October 1982 to September 1983

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)			ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)			ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)			ARSENIC DIS-SOLVED TOTAL ( $\mu$ G/L AS AS)		
				INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	SUS- PENDED RECOV. ( $\mu$ G/L AS AL)	SOLVED RECOV. ( $\mu$ G/L AS AL)	INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	SUS- PENDED RECOV. ( $\mu$ G/L AS AL)	SOLVED RECOV. ( $\mu$ G/L AS AL)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	DIS-SOLVED TOTAL ( $\mu$ G/L AS AS)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	DIS-SOLVED TOTAL ( $\mu$ G/L AS AS)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	
JUN 21...	405	82	8.2	10.5	.113	6700	6500	170	1	<1	<1	<1	<1	<1	
JUL 06...	146	88	8.4	11.0	.023	660	620	40	<1	<1	<1	<1	<1	<1	
20...	36	154	8.3	21.5	.013	280	240	40	1	1	<1	<1	<1	<1	
AUG 03...	19	198	8.2	16.0	--	--	--	--	--	--	--	--	--	--	
16...	9.1	230	8.2	19.0	--	--	--	--	--	--	--	--	--	--	
CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)															
CADMUM TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	
JUN 21...	1	<1	35	34	1	4	<1	16	14	2	<1	<1	<1	<1	
JUL 06...	<1	2	8	6	2	1	<1	23	15	8	<1	<1	<1	<1	
20...	<1	<1	4	--	<1	<1	<1	4	3	1	<1	<1	<1	<1	
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
16...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 40.--Onsite measurements, trace constituents, and sediment data for station 09129800, Clear Fork near Ragged Mountain (site 1), water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGA-			
	IRON, TOTAL	SUS- PENDED	IRON, DIS- RECOV-	LEAD, TOTAL	SUS- PENDED	LEAD, DIS- RECOV-	LEAD, TOTAL	NESE, SUS- PENDED	NESE, DIS- RECOV.	MANGA- NESE, SUS- PENDED	MANGA- NESE, DIS- RECOV.	
( $\mu\text{g}/\text{L}$ ) (AS FE)	( $\mu\text{g}/\text{L}$ ) (AS FE)	SOLVED ( $\mu\text{g}/\text{L}$ ) (AS FE)	ERABLE ( $\mu\text{g}/\text{L}$ ) (AS PB)	ERABLE ( $\mu\text{g}/\text{L}$ ) (AS PB)	ERABLE ( $\mu\text{g}/\text{L}$ ) (AS PB)	SOLVED ( $\mu\text{g}/\text{L}$ ) (AS PB)	ERABLE ( $\mu\text{g}/\text{L}$ ) (AS PB)	SOLVED ( $\mu\text{g}/\text{L}$ ) (AS MN)	ERABLE ( $\mu\text{g}/\text{L}$ ) (AS MN)	SOLVED ( $\mu\text{g}/\text{L}$ ) (AS MN)	ERABLE ( $\mu\text{g}/\text{L}$ ) (AS MN)	
JUN												
21...	7800	7700	52	9	6	3	290	280	280	280	280	6
JUL												
06...	600	540	58	5	3	2	20	10	9	9	9	6
20...	220	200	23	5	--	<1	20	9	11	11	11	
AUG												
03...	--	--	--	--	--	--	--	--	--	--	--	
16...	--	--	--	--	--	--	--	--	--	--	--	
MERCURY												
TOTAL	MERCURY	SELE- NIUM,	SELE- NIUM,	ZINC, TOTAL	ZINC, DIS- RECOV-	ZINC, DIS- RECOV-	ZINC, DIS- RECOV-	ZINC, SUS- PENDED	ZINC, DIS- RECOV-	ZINC, MENT,	ZINC, MENT,	SEDI- MENT,
RECOV-	DIS-	SOLVED	TOTAL	SOLVED	ERABLE	ERABLE	ERABLE	SOLVED	SOLVED	CHARGE,	CHARGE,	DIS- MENT,
ERABLE	SOLVED	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) (AS HG)	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) (AS HG)	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) (AS SE)	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) (AS SE)	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) (AS ZN)	SUS- PENDED	SUS- PENDED	PENDED			
( $\mu\text{g}/\text{L}$ ) (AS HG)	( $\mu\text{g}/\text{L}$ ) (AS HG)											(T/DAY)
JUN												
21...	.5	<.1	<1	<1	<1	70	60	13	641	641	641	701
JUL												
06...	.2	<.1	1	<1	<1	40	30	11	17	17	17	6.7
20...	.1	<.1	<1	<1	<1	20	20	5	11	11	11	1.1
AUG												
03...	--	--	--	--	--	--	--	--	--	--	--	
16...	--	--	--	--	--	--	--	--	--	--	--	

Table 41.--Onsite measurements, trace constituents, and sediment data for station 09131100, Cow Creek near Paonia (site 2), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	ALUMINUM			CADMIUM		
					PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, RECOVERABLE ( $\mu$ G/L AS AL)	ARSENIC TOTAL, DIS-SOLVED ( $\mu$ G/L AS AS)	ARSENIC TOTAL, RECOVERABLE ( $\mu$ G/L AS AS)	CADMIUM TOTAL, DIS-SOLVED ( $\mu$ G/L AS CD)	
JUN 08...	72	38	7.3	8.5	.025	380	100	<1	<1	<1
25...	6.0	74	8.1	9.5	.015	190	130	<1	<1	<1
JUL 12...	26	40	7.9	16.0	.023	290	--	<1	--	<1
AUG 03...	1.3	107	7.8	13.0	--	--	--	--	--	--
18...	.55	103	7.8	13.0	--	--	--	--	--	--
DATE	CHROMIUM, TOTAL	CHROMIUM, RECOVERABLE SOLVED ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS CO)	COBALT, DIS-SOLVED ( $\mu$ G/L AS CO)	COPPER, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS CU)	IRON, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS FE)	IRON, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS FE)	LEAD, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS PB)	LEAD, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS PB)	
JUN 08...	4	<1	<1	<1	7	2	420	140	4	<1
25...	5	<1	1	1	2	4	260	160	1	4
JUL 12...	2	--	<1	--	3	--	300	--	6	--
AUG 03...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--

Table 41.--Onsite measurements, trace constituents, and sediment data for station 09131100, Cow Creek near Paonia (site 2), water year October 1981 to September 1982--Continued

	MANGA- NESE, TOTAL	MANGA- NESE, TOTAL	MERCURY TOTAL	SELE- NTUM, DIS- RECOV- ERABLE	SELE- NTUM, DIS- SOLVED	ZINC, TOTAL	SELE- NTUM, DIS- RECOV- ERABLE	ZINC, TOTAL	SELE- NTUM, DIS- SOLVED	ZINC, TOTAL	SEDI- MENT, DIS- CHARGE, SUS- PENDED
DATE	( $\mu$ G/L AS MN)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	(T/DAY)
JUN											
08...	20	14	.5	.1	<1	<1	30	100	23	4.5	
25...	30	11	.1	<.1	<1	<1	10	17	11	.18	
JUL											
12...	20	--	.2	--	<1	--	20	--	10	.70	
AUG											
03...	--	--	--	--	--	--	--	--	9	.03	
18...	--	--	--	--	--	--	--	--	34	.05	

Table 42.--Onsite measurements, trace constituents, and sediment data for station 09131100, Cow Creek near Paonia (site 2), water year October 1982 to September 1983

STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-				ARSENIC				CADMIUM			
				INDM, TOTAL	SUS- RECOV- ERABLE	INUM, TOTAL	DIS- RECOV.	ARSENIC TOTAL ( $\mu$ G/L AS AS)	SOLVED ( $\mu$ G/L AS AL)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	SOLVED ( $\mu$ G/L AS AL)	RECOV- ERABLE ( $\mu$ G/L AS CD)			
JUN 08...	169	50	8.1	3.0	.029	800	660	140	<1	<1	<1	<1	1		
21...	135	40	8.0	5.0	.025	590	470	120	<1	<1	<1	<1	1		
JUL 06...	166	48	8.2	8.0	.034	420	320	100	1	<1	<1	<1	1		
20...	17	58	7.9	14.5	.009	230	160	70	1	<1	<1	<1	<1		
AUG 03...	.82	105	7.6	15.0	--	--	--	--	--	--	--	--	--	--	--
16...	.86	140	7.8	18.5	--	--	--	--	--	--	--	--	--	--	--
JUN															
CADMIUM SUS- PENDED	CADMIUM DIS- RECOV- ERABLE		CHRO-MIUM, TOTAL	CHRO-MIUM, PENDED	COBALT, TOTAL	COBALT, SUS- RECOV- ERABLE	COBALT, SOLVED ( $\mu$ G/L AS CR)								
( $\mu$ G/L AS CD)	( $\mu$ G/L AS CD)		( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS CU)	COPPER, SUS- PENDED
08...	--	<1	7	--	<1	2	--	<1	<1	4	4	2			
21...	--	<1	8	7	1	1	0	1	1	8	8	7			
JUL 06...	0	1	8	6	2	1	0	1	1	10	4	3			
20...	--	<1	<1	--	<1	<1	--	--	--	--	--	--			
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--			
16...	--	--	--	--	--	--	--	--	--	--	--	--			

Table 42.--Onsite measurements, trace constituents, and sediment data for station 09131100, Cow Creek near Paonia (site 2), water year October 1982 to September 1983--Continued

COPPER, DIS- SOLVED ( $\mu\text{G/L}$ AS CU)	IRON, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, DIS- SOLVED ERABLE ( $\mu\text{G/L}$ AS FE)	LEAD, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, DIS- SOLVED ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGA- NESE, SUS- PENDED RECOV. ( $\mu\text{G/L}$ AS MN)
JUN 08...	2	820	700	120	12	10	2	40
21...	1	660	530	130	4	2	2	30
JUL 06...	6	440	340	100	6	5	1	20
20...	1	270	160	110	<1	--	<1	20
AUG 03...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
MERCURY	MERCURY SUS- PENDED	MERCURY DIS- SOLVED	SELE- NIUM, TOTAL	ZINC, TOTAL, RECOV- ERABLE	ZINC, SUS- PENDED	ZINC, DIS- SOLVED	ZINC, SUS- PENDED	SEDI- MENT, DIS- CHARGE, SUS- PENDED
DATE	( $\mu\text{G/L}$ AS HG)	( $\mu\text{G/L}$ AS HG)	( $\mu\text{G/L}$ AS SE)	( $\mu\text{G/L}$ AS ZN)	( $\mu\text{G/L}$ AS ZN)	( $\mu\text{G/L}$ AS ZN)	( $\mu\text{G/L}$ AS ZN)	( $\text{MG/L}$ (T/DAY))
JUN 08...	.2	--	<.1	<1	<1	20	10	7
21...	1.5	--	<.1	<1	<1	30	0	22
JUL 06...	.9	.5	.4	<1	<1	20	0	15
20...	.1	--	<.1	<1	<1	10	0	8
AUG 03...	--	--	--	--	--	--	--	8
16...	--	--	--	--	--	--	--	8

Table 43.--Onsite measurements, trace constituents, and sediment data for station 09132500, North Fork Gunnison River near Somerset (site 4), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	ALUMINUM, INUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS P)	PHOS-PHORUS, TOTAL ( $\mu$ G/L AS AL)	ARSENIC, TOTAL, SOLVED ( $\mu$ G/L AS AS)	ARSENIC, DIS- SOLVED ( $\mu$ G/L AS AS)	CADMIUM TOTAL RECOV- ERABLE ( $\mu$ G/L AS CD)
OCT 07...	78	160	7.1	12.0	.010	150	--	0	--
DEC 08...	65	195	6.3	.0	.010	--	--	--	--
JAN 26...	91	210	--	.0	.010	200	--	2	--
MAR 23...	285	235	8.7	2.5	.020	470	--	2	--
MAY 04...	3020	110	6.9	8.5	.130	--	--	--	--
JUN 17...	1680	53	7.8	10.5	.060	910	30	1	<1
29....	1400	235	6.7	18.5	<.010	--	--	--	--
JUL 27....	309	120	7.3	19.0	.040	300	--	1	--
AUG 19....	225	129	8.2	19.0	.036	600	20	<1	<1
24....	283	140	6.8	15.0	.090	--	--	--	--

Table 43.--Onsite measurements, trace constituents, and sediment data for station 09132500, North Fork Gunnison River near Somerset (site 4), water year October 1981 to September 1982--Continued

DATE	CHRO-MIUM, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS CR)	CHRO-MIUM, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS CO)	COBALT, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS CO)	COPPER, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS CU)	IRON, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)
OCT 07...	10	--	--	6	--	--
DEC	--	--	--	--	22	2
08...	--	--	--	--	230	--
JAN 26...	10	--	--	12	--	--
MAR 23...	<10	--	--	11	--	--
MAY 04...	--	--	--	--	--	--
JUN 17...	3	<1	<1	3	1000	27
29...	--	--	--	--	150	--
JUL 27...	<10	--	--	7	--	--
AUG 19...	5	<1	<1	1	790	27
24...	--	--	--	--	33	--

Table 43.--Onsite measurements, trace constituents, and sediment data for station 09132500, North Fork Gunnison River near Somerset (site 4), water year October 1981 to September 1982--Continued

DATE	MANGANESE, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS SE)	ZINC, TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L T/DAY)
OCT 07...	10	--	.0	--	0	--
DEC 08...	--	--	--	--	--	--
JAN 26...	10	--	.4	--	<1	--
MAR 23...	80	--	.1	--	<1	--
MAY 04...	--	--	--	--	--	--
JUN 17...	30	4	.2	<.1	<1	30
29...	--	--	--	--	--	--
JUL 27...	20	--	.2	--	<1	--
AUG 19...	20	4	.1	<.1	<1	30
24...	--	--	--	--	--	--

Table 44.--Onsite measurements, trace constituents, and sediment data for station 385033107190300, Upper Coal Creek near Somerset (site 5), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	ALUMINUM			CADMIUM		
					PHOSPHORUS, TOTAL (MG/L AS P)	RECOVERABLE DISPERSED ( $\mu$ G/L AS AL)	SOLVED ( $\mu$ G/L AS AL)	ARSENIC, TOTAL ( $\mu$ G/L AS AS)	DISPERSED SOLVED ( $\mu$ G/L AS AS)	SOLVED ( $\mu$ G/L AS CD)
AUG 05...	37	100	8.4	15.5	.035	750	20	<1	<1	<1
17...	23	125	8.0	15.0	--	--	--	--	--	--
CHROMIUM, TOTAL, RECOVERABLE ( $\mu$ G/L AS CR)	CHROMIUM, TOTAL, RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL, RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, DISPERSED ( $\mu$ G/L AS CO)	COPPER, TOTAL, RECOVERABLE ( $\mu$ G/L AS CU)	COPPER, DISPERSED ( $\mu$ G/L AS CU)	SOLVED ( $\mu$ G/L AS CU)	IRON, TOTAL, RECOVERABLE ( $\mu$ G/L AS FE)	IRON, TOTAL, RECOVERABLE ( $\mu$ G/L AS FE)	LEAD, TOTAL, RECOVERABLE ( $\mu$ G/L AS PB)	LEAD, TOTAL, RECOVERABLE ( $\mu$ G/L AS PB)
AUG 05...	5	<1	<1	<1	2	<1	810	17	<1	2
17...	--	--	--	--	--	--	--	--	--	--
MANGANESE, TOTAL, RECOVERABLE ( $\mu$ G/L AS MN)	MANGANESE, TOTAL, RECOVERABLE ( $\mu$ G/L AS HG)	MERCURY	MERCURY DISPERSED ( $\mu$ G/L AS HG)	SELENIUM, TOTAL, SOLVED ( $\mu$ G/L AS SE)	SELENIUM, DISPERSED ( $\mu$ G/L AS SE)	SOLVED ( $\mu$ G/L AS SE)	ZINC, TOTAL, RECOVERABLE ( $\mu$ G/L AS ZN)	ZINC, TOTAL, RECOVERABLE ( $\mu$ G/L AS ZN)	SEDIMENT, TOTAL, CHARGE, SUSPENDED ( $\mu$ G/L T/DAY)	SEDIMENT, TOTAL, CHARGE, SUSPENDED ( $\mu$ G/L T/DAY)
AUG 05...	30	4	.1	<.1	<1	<1	80	11	30	3.0
17...	--	--	--	--	--	--	--	--	8	.50

Table 45.--Onsite measurements, trace constituents, and sediment data for station 385033107190300, Upper Coal Creek near Somerset (site 5), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS AL)	ALUM-INUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC DIS-SOLVED TOTAL ( $\mu$ G/L AS AS)	
						CHROMIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CU)
JUL 07...	255	85	8.6	8.0	.087	1700	1700	40	1
19...	117	95	8.2	11.0	.039	990	950	40	<1
AUG 01...	87	155	7.7	17.0	--	--	--	--	<1
15...	39	130	8.4	23.0	--	--	--	--	--
JUL 07...	<1	1	7	<1	3	2	1	22	19
19...	<1	1	5	<1	1	--	<1	6	5
AUG 01...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--

Table 45.--Onsite measurements, trace constituents, and sediment data for station 385033107190300, Upper Coal Creek near Somerset (site 5), water year October 1982 to September 1983--Continued

	IRON, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, DIS- SOLVED ( $\mu\text{G/L}$ AS FE)	LEAD, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, DIS- SOLVED RECOV. ( $\mu\text{G/L}$ AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	MANGA- NESE, SUS- PENDED RECOV. ( $\mu\text{G/L}$ AS MN)	MANGA- NESE, DIS- SOLVED RECOV. ( $\mu\text{G/L}$ AS MN)
JUL									
07...	2900	2900	49	9	7	2	40	40	4
19...	1500	1500	36	<1	--	<1	20	10	7
AUG									
01...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
MERCURY	MERCURY TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS HG)	MERCURY DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	MERCURY SUS- PENDED ( $\mu\text{G/L}$ AS SE)	SELE- NIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS SE)	SELE- NIUM, DIS- SOLVED ( $\mu\text{G/L}$ AS SE)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, DIS- SOLVED RECOV. ( $\mu\text{G/L}$ AS ZN)	ZINC, SUS- PENDED RECOV. ( $\mu\text{G/L}$ AS ZN)
JUL									
07...	.2	<.1	<1	<1	<1	50	30	23	157
19...	<.1	<.1	<1	<1	<1	40	0	48	65
AUG									
01...	--	--	--	--	--	--	--	--	21
15...	--	--	--	--	--	--	--	--	115
									27
									12
									1.3

Table 46.--Onsite measurements, trace constituents, and sediment data for station 385037107190300, Cliff Creek near Somerset (site 6), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	(STAND-ARD UNITS)	PH ( $^{\circ}$ C)	TEMPERATURE ( $^{\circ}$ C)	ALUMINUM, TOTAL, RECOVERABLE ( $\mu$ G/L AS AL)	PHOSPHORUS, TOTAL, RECOVERABLE ( $\mu$ G/L AS P)	ARSENIC, TOTAL, RECOVERABLE ( $\mu$ G/L AS AS)	ARSENIC, TOTAL, SOLVED ( $\mu$ G/L AS AS)	CADMIUM, TOTAL, RECOVERABLE ( $\mu$ G/L AS CD)	CADMIUM, TOTAL, SOLVED ( $\mu$ G/L AS CD)	
						CHROMIUM, TOTAL, RECOVERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL, RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL, RECOVERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL, RECOVERABLE ( $\mu$ G/L AS CU)	IRON, TOTAL, RECOVERABLE ( $\mu$ G/L AS FE)	LEAD, TOTAL, RECOVERABLE ( $\mu$ G/L AS PB)	
JUL 14...	--	36	8.1	13.5	.031	480	20	<1	<1	<1	<1	<1
AUG 05...	38	49	7.7	13.5	.023	300	10	<1	<1	1	1	<1
17...	30	56	7.7	13.5	--	--	--	--	--	--	--	--
JUL 14...	3	<1	<1	1	3	1	350	28	28	2	2	1
AUG 05...	2	<1	<1	<1	2	<1	220	23	23	3	3	2
17...	--	--	--	--	--	--	--	--	--	--	--	--

Table 46.--Onsite measurements, trace constituents, and sediment data for station 385037107190300, Cliff Creek near Somerset (site 6), water year October 1981 to September 1982--Continued

DATE	MANGANESE, TOTAL NESE, DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS MN)	MANGA- NESE, TOTAL NESE, DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS HG)	MERCURY TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu\text{G/L}$ AS HG)	SELE- NIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS SE)	SELE- NIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS SE)	ZINC, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
JUL 14....	10	4	.1	<.1	<1	<1	20	9	16
AUG 05....	10	3	.1	<.1	<1	<1	60	4	4
17....	--	--	--	--	--	--	--	4	.32

Table 47.--Onsite measurements, trace constituents, and sediment data for station 386037107190300, Cliff Creek near Somerset (site 6), water year October 1982 to September 1983

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS,			ARSENIC DIS-SOLVED		
				TOTAL (FG/L AS P)	TOTAL (FG/L AS AL)	RECOV-ERABLE ( $\mu$ G/L AS AL)	TOTAL ( $\mu$ G/L AS AL)	RECOV-ERABLE ( $\mu$ G/L AS AL)	TOTAL ( $\mu$ G/L AS AS)
<b>JUL</b>									
07...	277	62	8.8	8.0	.056	870	830	40	1 <1
19...	103	55	8.1	11.0	.020	360	330	30	1 <1
AUG									
01...	65	65	7.6	14.0	--	--	--	--	--
15...	34	75	7.9	21.0	--	--	--	--	--
<b>CADMUM</b>									
TOTAL	CADMUM	MUM, TOTAL	CHRO-MIUM,	COBALT, TOTAL	COBALT, SUS-	COPPER, COBALT, TOTAL	COPPER, RECOV-ERABLE	COPPER, PENDED	COPPER, SUS-
RECOV-ERABLE	DIS-SOLVED	DIS-ERABLE	SOLVED	RECOV-ERABLE	DIS-ERABLE	RECOV-ERABLE	RECOV-ERABLE	RECOV-ERABLE	DIS-SOLVED
( $\mu$ G/L AS CD)	( $\mu$ G/L AS CD)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS CU)
DATE									
<b>JUL</b>									
07...	<1	1	4	<1	1	0	1	6	5 1
19...	<1	1	4	<1	<1	--	<1	7	6 1
AUG									
01...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--

Table 47.--Onsite measurements, trace constituents, and sediment data for station 385037107190300, Cliff Creek near Somerset (site 6), water year October 1982 to September 1983--Continued

DATE	(µG/L AS FE)	IRON, SUS- PENDED	IRON, DIS- RECOV- ERABLE	SOLVED (µG/L AS FE)	LEAD, TOTAL, RECOV- ERABLE (µG/L AS PB)	LEAD, SUS- PENDED	LEAD, DIS- RECOV- ERABLE (µG/L AS PB)	MANGA- NESE, SUS- PENDED	MANGA- NESE, SUS- PENDED
		(µG/L AS FE)	(µG/L AS FE)	(µG/L AS FE)	(µG/L AS PB)	(µG/L AS PB)	(µG/L AS PB)	(µG/L AS MN)	(µG/L AS MN)
<b>JUL</b>									
07...	770	740	29	3	0	3	30	30	4
19...	300	260	42	<1	--	<1	10	5	5
<b>AUG</b>									
01...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
<b>MERCURY</b>									
TOTAL	MERCURY	SELE- NIUM,	SELE- NIUM,	SELE- NIUM,	ZINC, TOTAL, RECOV- ERABLE (µG/L AS HG)	ZINC, TOTAL, RECOV- ERABLE (µG/L AS SE)	ZINC, TOTAL, RECOV- ERABLE (µG/L AS ZN)	ZINC, SUS- PENDED	ZINC, SUS- PENDED
RECOV- ERABLE	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	RECOV- ERABLE (µG/L AS HG)	RECOV- ERABLE (µG/L AS SE)	RECOV- ERABLE (µG/L AS ZN)	RECOV- ERABLE (µG/L AS ZN)	RECOV- ERABLE (µG/L AS ZN)
(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)	(µG/L AS HG)
DATE									
<b>JUL</b>									
07...	.2	<.1	<1	<1	60	60	4	43	32
19...	.2	<.1	<1	<1	20	0	22	10	2.8
<b>AUG</b>									
01...	--	--	--	--	--	--	--	10	1.8
15...	--	--	--	--	--	--	--	4	.37

Table 48.--Onsite measurements, trace constituents, and sediment data for station 385146107094700, Ruby Anthracite Creek near Kebler Pass (site 7), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	ALUMINUM			CADMIUM		
					INUM, TOTAL	RECOV-ERABLE	ARSENIC TOTAL	ARSENIC SOLVED	TOTAL RECOVERABLE	CADMIUM DIS-SOLVED
JUN 10...	347	34	8.3	3.5	.035	1700	80	1	<1	<1
21...	192	35	7.6	6.0	--	--	--	--	--	--
JUL 14...	75	30	7.9	10.0	.760	580	30	1	<1	<1
AUG 04...	23	58	8.0	13.5	--	--	--	--	--	--
16...	20	70	7.5	17.0	.013	200	20	1	1	<1
CHROMIUM, TOTAL, DIS-SOLVED	CHROMIUM, TOTAL, DIS-SOLVED	COBALT, COBALT, TOTAL	IRON, COPPER, TOTAL	IRON, COPPER, TOTAL	IRON, COPPER, TOTAL	IRON, COPPER, TOTAL	IRON, COPPER, TOTAL	IRON, COPPER, TOTAL	LEAD, TOTAL	LEAD, TOTAL
( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS FE)	( $\mu$ G/L AS PB)	( $\mu$ G/L AS PB)			
JUN 10...	5	<1	<1	<1	9	2	1600	58	9	3
21...	--	--	--	--	--	--	--	--	--	--
JUL 14...	3	<1	5	<1	5	1	410	53	6	<1
AUG 04...	--	--	--	--	--	--	--	--	--	--
16...	3	<1	<1	<1	3	2	310	110	<1	3

Table 48--Onsite measurements, trace constituents, and sediment data for station 385146107094700, Ruby Anthracite Creek near Kebler Pass (site 7), water year October 1981 to September 1982--Continued

	MANGANESE, TOTAL	MANGANESE, NESE,	MERCURY TOTAL	MERCURY DIS- RECOV- ERABLE	SELE- NIUM, TOTAL, SOLVED	ZINC, TOTAL, DIS- RECOV- ERABLE								
DATE	( $\mu$ G/L AS MN)	( $\mu$ G/L AS MN)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)
JUN														
10...	80	9	.1	<.1	<1	<1	<1	20	31	157	147			
21...	--	--	--	--	--	--	--	--	--	--	44	23		
JUL														
14...	20	14	.2	<.1	<1	<1	<1	30	10	31	6.3			
AUG														
04...	--	--	--	--	--	--	--	--	--	--	4	.25		
16...	30	29	.1	<.1	<1	<1	<1	20	19	7	.38			

Table 49.--Onsite measurements, trace constituents, and sediment data for station 385146107094700, Ruby Anthracite Creek near Kebler Pass (site 7), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC SUS-PENDED AS AS)	ARSENIC SUS-PENDED AS AS)
JUN 22...	453	42	7.7	4.0	.079	4700	4600	80	1	0
JUL 05...	607	38	7.9	7.0	.119	1300	90	4	3	1
JUL 18...	103	42	7.8	13.0	.018	520	460	60	1	0
AUG 02...	49	66	7.9	12.0	--	--	--	--	--	--
<hr/>										
CADMUM	SUS-PENDED	CADMUM	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CU)	
JUN	1	0	1	5	3	2	2	--	<1	5
JUL	2	0	2	8	--	<1	1	0	1	22
JUL 05...	1	--	<1	4	--	<1	--	<1	6	8
JUL 18...	--	--	--	--	--	--	--	--	--	1
AUG 02...	--	--	--	--	--	--	--	--	--	--

Table 49.--Onsite measurements, trace constituents, and sediment data for station 385146107094700, Ruby Anthracite Creek near Kebler Pass (site 7), water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGA-			
	IRON, TOTAL	SUS- PENDED	IRON, RECOV- ERABLE	DIS- SOLVED ( $\mu\text{G/L}$ ) AS CU)	LEAD, TOTAL	PENDED	LEAD, RECOV- ERABLE	SUS- PENDED	NESE, TOTAL	SUS- PENDED	NESE, TOTAL	MANGA- NESE, AS MN)
JUN 22...	2	3800	3700	73	9	7	2	190	180	11	11	
JUL 05...	14	1000	930	66	11	9	2	40	30	10	10	
18...	5	420	370	49	<1	--	<1	30	10	17	17	
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	
DATE	MERCURY				SELE-				ZINC,			
	MERCURY TOTAL	SUS- PENDED	MERCURY RECOV- ERABLE	DIS- SOLVED ( $\mu\text{G/L}$ ) AS HG)	SELE- NIUM, TOTAL	DIS- SOLVED ( $\mu\text{G/L}$ ) AS SE)	SELE- NIUM, TOTAL	DIS- SOLVED ( $\mu\text{G/L}$ ) AS SE)	ZINC, TOTAL	PENDED	ZINC, RECOV- ERABLE	SELE- MENT, DIS- CHARGE,
JUN 22...	.1	--	<.1	<1	<1	<1	40	30	8	387	473	
JUL 05...	.9	.5	.4	<.1	<1	<1	40	0	31	28	46	
18...	<.1	--	--	--	<1	<1	20	0	12	47	13	
AUG 02...	--	--	--	--	--	--	--	--	--	13	1.7	
DATE	ZINC,				ZINC, RECOV- ERABLE				SUS- PENDED			
	ZINC, TOTAL	SUS- PENDED	ZINC, RECOV- ERABLE	SUS- PENDED ( $\mu\text{G/L}$ ) AS ZN)	ZINC, TOTAL	SUS- PENDED	ZINC, RECOV- ERABLE	SUS- PENDED ( $\mu\text{G/L}$ ) AS ZN)	ZINC, TOTAL	PENDED	ZINC, RECOV- ERABLE	SUS- PENDED ( $\mu\text{G/L}$ ) (T/DAY)
JUN 22...	22...	.1	--	<.1	40	30	8	387	473			
JUL 05...	.9	.5	.4	<.1	40	0	31	28	46			
18...	<.1	--	--	--	20	0	12	47	13			
AUG 02...	--	--	--	--	--	--	--	--	--	13	1.7	

Table 50.--Onsite measurements, trace constituents, and sediment data for station 385308107345100, North Fork Gunnison River above Paonia (site 8), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (µG/L AS AL)	ARSENIC TOTAL, SOLVED (µG/L AS AS)	CADMIUM TOTAL, SOLVED (µG/L AS CD)
APR 14...	1010	133	6.8	6.0	--	6700	220	1
MAY 20...	949	145	7.7	10.5	.158	7200	140	<1
JUN 09...	2240	104	8.2	7.5	.048	1400	40	<1
JUN 24...	1290	160	8.0	13.5	--	--	--	--
JUL 15...	440	182	8.2	12.5	--	--	--	--
AUG 10...	68	369	8.0	20.5	--	--	--	--
CHRO-MIUM, TOTAL, DIS-SOLVED (µG/L AS CR)								
APR 14...	14	2	<1	1	5	5	5100	160
MAY 20...	9	<1	5	2	15	3	9400	72
JUN 09...	8	<1	<1	<1	15	1	1700	42
JUN 24...	--	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--
CHRO-MIUM, TOTAL, DIS-SOLVED (µG/L AS CU)								
APR								
14...								
MAY								
20...								
JUN								
09...								
24...								
JUL								
15...								
AUG								
10...								

Table 50.--Onsite measurements, trace constituents, and sediment data for station 385308107345100, North Fork Gunnison River above Paonia (site 8), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS HG)	MERCURY TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL, SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL, SOLVED ( $\mu\text{G/L}$ AS SE)	ZINC, TOTAL, SOLVED ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL, SOLVED ( $\mu\text{G/L}$ AS ZN)	SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR 14.... MAY 20.... JUN 09.... 24.... JUL 15.... AUG 10....	160 260 50 -- -- -- -- -- --	40 10 .2 .2 .2 .2 .2 .2 .2	.1 <.1 <.1 .7 .7 -- -- -- --	<1 <1 <1 <1 <1 -- -- -- --	<1 <1 <1 <1 <1 -- -- -- --	30 60 40 40 -- -- -- -- --	20 28 11 -- -- 	210 928 187 24 24 

Table 51.--Onsite measurements, trace constituents, and sediment data for station 385308107345100, North Fork Gunnison River above Paonia (site 8), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	PHOSPHORUS,			ALUMINUM,			ARSENIC			CADMIUM		
					TOTAL ERABLE ( $\mu$ G/L AS P)	TOTAL ERABLE ( $\mu$ G/L AS P)	RECOV. REC'D AS AL)	TOTAL, RECOV- ERABLE ( $\mu$ G/L AS AL)	SUS-PENDED REC'D AS AL)	INUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS AL)	ARSENIC TOTAL SOLVED ( $\mu$ G/L AS AS)	DIS- ERABLE ( $\mu$ G/L AS AS)	ARSENIC TOTAL SOLVED ( $\mu$ G/L AS AS)	DIS- ERABLE ( $\mu$ G/L AS AS)	CADMIUM TOTAL SOLVED ( $\mu$ G/L AS AS)	
MAY 31...	--	110	7.4	9.0	.198	9300	9100	250	1	<1	2					
JUN 09...	4410	105	7.8	8.5	.055	5500	5400	110	1	<1	<1					
20...	4640	92	7.5	12.5	.284	12000	12000	100	2	<1	1					
JUL 01...	2780	90	8.0	8.5	.049	3700	3600	70	1	<1	1					
19...	922	105	8.1	20.5	.014	450	410	40	1	<1	1					
AUG 04...	248	165	7.7	21.0	--	--	--	--	--	--	--					
17...	64	300	8.4	28.0	--	--	--	--	--	--	--					
CADMUM SUS- PENDED	CADMUM DIS- ERABLE	CADMUM SOLVED ( $\mu$ G/L AS CD)	CHRO- MUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CR)	CHRO- MUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CR)	CHRO- MUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CO)	SUS- PENDED	COBALT, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CU)	COPPER, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CU)	COPPER, SUS- PENDED				
MAY 31...	0	2	17	--	<1	5	--	<1	26	15						
JUN 09...	--	<1	13	--	<1	4	--	<1	9	6						
20...	--	<1	17	16	1	7	--	<1	20	16						
JUL 01...	0	3	7	--	<1	2	1	1	10	8						
19...	--	<1	3	--	<1	<1	--	<1	6	5						
AUG 04...	--	--	--	--	--	--	--	--	--	--						
17...	--	--	--	--	--	--	--	--	--	--						

Table 51.--Onsite measurements, trace constituents, and sediment data for station 385308107345100, North Fork Gunnison River above Paonia (site 8), water year October 1982 to September 1983--Continued

DATE	IRON,			LEAD,			MANGANESE,		
	IRON, TOTAL PENDED	IRON, RECOV- ERABLE	IRON, SOLVED	LEAD, TOTAL RECOV- ERABLE	LEAD, DIS- ERABLE	LEAD, SUS- PENDED	TOTAL RECOV- ERABLE	SUS- PENDED	MANGANESE, SUS- PENDED
MAY 31...	11	10000	9900	68	32	26	6	250	240
JUN 09...	3	6700	6600	62	41	38	3	170	160
20...	4	15000	15000	80	16	12	4	500	490
JUL 01...	2	4300	4200	53	32	29	3	120	110
19...	1	510	480	30	<1	--	1	20	10
AUG 04...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
 MERCURY									
DATE	MERCURY SUS- PENDED	MERCURY RECOV- ERABLE	MERCURY SOLVED	SELENIUM, TOTAL ( $\mu$ G/L AS HG)	SELENIUM, DIS- SOLVED ( $\mu$ G/L AS SE)	SELENIUM, SOLVED ( $\mu$ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE	ZINC, SUS- PENDED ( $\mu$ G/L AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MAY 31...	2.4	1.7	.7	1	<1	100	80	17	1590
JUN 09...	.2	--	<.1	<1	<1	50	40	9	345
20...	.4	--	<.1	1	<1	80	60	19	941
JUL 01...	1.3	1.0	.3	<1	<1	30	0	37	14
19...	.2	--	<.1	<1	<1	20	0	22	24
AUG 04...	--	--	--	--	--	--	--	--	24
17...	--	--	--	--	--	--	--	6	16
									1.0

Table 52.--Onsite measurements, trace constituents, and sediment data for station 385414107334000, Terror Creek near Paonia (site 9), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-INUM, ARSENIC TOTAL, DIS- ERABLE (µG/L AS AL)	ALUM-INUM, ARSENIC TOTAL, DIS- ERABLE (µG/L AS AS)	ALUM-INUM, ARSENIC TOTAL, DIS- ERABLE (µG/L AS AS)	ALUM-INUM, ARSENIC TOTAL, DIS- ERABLE (µG/L AS AS)	CADMIUM TOTAL, RECOV- ERABLE (µG/L AS CD)	CADMIUM TOTAL, DIS- ERABLE (µG/L AS CD)
					PHOS-PHORUS, TOTAL (Mg/L AS P)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU)	IRON, TOTAL RECOV- ERABLE (µG/L AS FE)		
APR 14...	93	95	7.6	7.5	--	5600	260	1	<1	1
JUN 09...	47	90	8.6	8.0	.042	880	70	<1	<1	3
JUL 24...	3.2	225	8.5	19.5	.030	910	60	<1	<1	<1
JUL 15...	.89	225	8.5	15.5	--	--	--	--	--	--
AUG 06...	.18	312	8.5	22.5	--	--	--	--	--	--
CHRO-MIUM, TOTAL RECOV- ERABLE (µG/L AS CR)	CHRO-MIUM, TOTAL RECOV- ERABLE (µG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (µG/L AS CO)	COBALT, TOTAL RECOV- ERABLE (µG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU)	IRON, TOTAL RECOV- ERABLE (µG/L AS FE)	IRON, TOTAL RECOV- ERABLE (µG/L AS PB)	LEAD, TOTAL, RECOV- ERABLE (µG/L AS PB)	LEAD, TOTAL, RECOV- ERABLE (µG/L AS PB)	LEAD, TOTAL, RECOV- ERABLE (µG/L AS PB)
APR 14...	16	<1	1	<5	8	15	5700	190	5	5
JUN 09...	2	<1	1	2	4	5	830	56	4	<1
JUL 24...	6	<1	1	1	3	5	870	51	<1	<1
JUL 15...	--	--	--	--	--	--	--	--	--	--
AUG 06...	--	--	--	--	--	--	--	--	--	--

Table 52.--Onsite measurements, trace constituents, and sediment data for station 385414107334000, Terror Creek near Paonia (site 9), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL	MANGANESE, NESE,	MERCURY TOTAL	MERCURY DIS- RECOV- ERABLE	SELENIUM, NIUM, TOTAL	SELENIUM, NIUM, TOTAL	ZINC, TOTAL	ZINC, DIS- RECOV- ERABLE	SOLVED	ZINC, TOTAL	SOLVED	SOLVED	SEDIMENT, DIS- CHARGE, SUS- PENDED
( $\mu\text{G/L}$ ) AS MN)	( $\mu\text{G/L}$ ) AS MN)	( $\mu\text{G/L}$ ) AS HG)	( $\mu\text{G/L}$ ) AS HG)	( $\mu\text{G/L}$ ) AS SE)	( $\mu\text{G/L}$ ) AS SE)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	(T/DAY)
APR 14...	150	10	.1	<.1	<1	<1	<1	30	10	203	51	
JUN 09...	30	5	.3	.2	<1	<1	<1	20	13	31	3.9	
24...	30	8	1.1	<.1	<1	<1	<1	30	10	22	.19	
JUL 15...	--	--	--	--	--	--	--	--	--	14	.03	
AUG 06...	--	--	--	--	--	--	--	--	--	8	.00	

Table 53.--Onsite measurements, trace constituents, and sediment data for station 385414107334000, Terror Creek near Paonia (site 9), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD) UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. ( $\mu$ G/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. ( $\mu$ G/L AS AL)	ARSENIC SUS-PENDED TOTAL ( $\mu$ G/L AS AS)	ARSENIC SUS-PENDED TOTAL ( $\mu$ G/L AS AS)	
MAY 31...	--	80	7.7	9.5	.142	11000	10000	690	1	0	2
JUN 09...	286	80	7.9	7.0	.055	4000	3500	500	1	--	<1
20...	188	78	7.3	12.5	.043	2600	2400	250	1	0	1
30...	109	90	7.5	17.0	.035	1100	980	120	<1	--	<1
JUL 20...	.34	285	8.5	17.0	.051	390	370	20	1	--	<1
AUG 18...	.15	510	8.2	19.0	--	--	--	--	--	--	--
MAY 31...	Cadmium TOTAL	Cadmium SUS-PENDED	Cadmium DIS-COV-ERABLE	Cadmium SOLVED	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)	CHRO-MIUM, SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL RECOV. ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COPPER, SUS-PENDED
JUN 09...	<1	--	<1	23	--	<1	1	--	<1	14	10
20...	1	--	<1	9	8	1	2	--	<1	11	7
30...	2	1	1	40	--	<1	1	0	1	13	10
JUL 20...	1	0	1	3	--	<1	--	<1	16	13	
AUG 18...	--	--	--	--	--	--	--	--	--	--	--

Table 53.--Onsite measurements, trace constituents, and sediment data for station 385414107334000, Terror Creek near Paonia (site 9), water year October 1982 to September 1983--Continued

DATE	(µG/L AS CU)	IRON, IRON, TOTAL PENDED			IRON, IRON, TOTAL PENDED			LEAD, LEAD, TOTAL PENDED			LEAD, LEAD, TOTAL PENDED			MANGA- NESE, SUS- PENDED				
		DIS- RECOV- ERABLE	SOLVED (µG/L AS FE)	AS FE)	DIS- RECOV- ERABLE	SOLVED (µG/L AS FE)	AS FE)	RECOV- ERABLE	SOLVED (µG/L AS PB)	AS PB)	RECOV- ERABLE	SOLVED (µG/L AS PB)	AS PB)	RECOV. ERABLE	SOLVED (µG/L AS MN)	AS MN)	MANGA- NESE, SUS- PENDED	DIS- RECOV.
MAY																		
31...	1.3	11000	11000		130	14		6		8		240		230		8		
JUN																		
09...	4	2900	2700		200	3		0		3		80		70		10		
20...	4	2600	2500		140	11		9		2		70		70		5		
30...	3	1300	1200		84	11		8		3		40		30		6		
JUL																		
20...	3	530	510		24	52		50		2		30		20		10		
AUG																		
18...	--	--	--		--	--		--		--		--		--		--		
MERCURY																		
MERCURY		SUS- PENDED	MERCURY DIS- ERABLE	SOLVED (µG/L AS HG)	SELE- NIUM, TOTAL (µG/L AS SE)	SELE- NIUM, TOTAL (µG/L AS SE)	SELE- NIUM, TOTAL (µG/L AS SE)	SELE- NIUM, TOTAL (µG/L AS SE)	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED	ZINC, TOTAL PENDED
MAY																		
31...	1.2	.6	.6	<1	<1	<1	<1	130	110	20	20	2150	--					
JUN																		
09...	.2	--	<.1	1	<1	<1	<1	50	40	14	14	127	98					
20...	.4	--	<.1	<1	<1	<1	<1	40	20	20	20	668	339					
30...	.2	--	<.1	<1	<1	<1	<1	40	20	16	16	146	43					
JUL																		
20...	.1	--	<.1	<1	<1	<1	<1	40	20	21	21	17	.02					
AUG																		
18...	--	--	--	--	--	--	--	--	--	--	--	58	.02					

Table 54.-Onsite measurements, trace constituents, and sediment data for station 385506107161400, Grouse Spring Creek near Marcelling Mountain (site 10), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUMINUM, TOTAL ( $\mu$ G/L AS AL)	ARSENIC, TOTAL ( $\mu$ G/L AS AL)	CADMIUM, TOTAL ( $\mu$ G/L AS CD)
JUN 10...	14	30	7.9	10.5	.082	1100	<1	<1
21...	4.8	55	7.8	14.5	--	--	--	--
JUL 14...	1.5	49	8.4	20.0	--	--	--	--
AUG 04...	.32	127	8.2	19.5	--	--	--	--
16...	--	--	--	--	--	--	--	--
CHROMIUM, TOTAL	CHROMIUM, DIS-SOLVED	COBALT, TOTAL	COBALT, DIS-SOLVED	COPPER, TOTAL	COPPER, DIS-SOLVED	IRON, TOTAL	IRON, DIS-SOLVED	LEAD, TOTAL
( $\mu$ G/L AS CR)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS CU)	( $\mu$ G/L AS FE)	( $\mu$ G/L AS FE)	( $\mu$ G/L AS PB)
JUN 10...	5	<1	<1	2	1	1200	150	3
21...	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--

Table 54.--Onsite measurements, trace constituents, and sediment data for station 385506107161400, Grouse Spring Creek near Marcelling Mountain (site 10), water year October 1981 to September 1982--Continued

	MANGA- NESE,	MANGA- NESE,	MERCURY TOTAL	MERCURY RECOV- ERABLE	SELE- NIUM, SOLVED	SELE- NIUM, TOTAL	ZINC, DIS- ERABLE	ZINC, DIS- SOLVED	ZINC, MENT, CHARGE, SUS- PENDED	SEDI- MENT, DIS- CHARGE, SUS- PENDED
DATE	( $\mu$ G/L AS MN)	( $\mu$ G/L AS MN)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	( $\mu$ G/L T/DAY)	( $\mu$ G/L T/DAY)
JUN										
10....	50	18	.1	<.1	<1	<1	60	17	80	3.0
21....	--	--	--	--	--	--	--	--	38	.49
JUL										
14....	--	--	--	--	--	--	--	--	15	.06
AUG										
04....	--	--	--	--	--	--	--	--	3	.00
16....	--	--	--	--	--	--	--	--	9	--

Table 55.--Onsite measurements, trace constituents, and sediment data for station 385506107161400, Grouse Spring Creek near Marceline Mountain (site 10), water year October 1982 to September 1983

Table 55.--Onsite measurements, trace constituents, and sediment data for station 385506107161400, Grouse Spring Creek near Marcelling Mountain (site 10), water year October 1982 to September 1983--Continued

COPPER, DIS- SOLVED ( $\mu\text{G/L}$ AS CU)	IRON, IRON, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, IRON, PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS FE)	IRON, IRON, DIS- SOLVED ( $\mu\text{G/L}$ AS FE)	LEAD, TOTAL, RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, TOTAL, RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, SUS- PENDED RECOV- ERABLE ( $\mu\text{G/L}$ AS PB)	LEAD, TOTAL, RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGA- NESE, SUS- PENDED RECOV. ( $\mu\text{G/L}$ AS MN)
JUN 06...	5	14000	14000	110	22	17	5	510	480
22...	1	3200	3100	69	4	1	3	120	100
JUL 05...	1	440	310	130	23	21	2	30	20
18...	1	490	380	110	<1	--	<1	30	10
AUG 02...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
MERCURY	MERCURY	SUS- PENDED	MERCURY	SELE- NIUM,	ZINC,	ZINC,	ZINC,	SEDIMENT,	SEDIMENT,
TOTAL	RECOV- ERABLE	RECOV- ERABLE	SOLVED	DIS- TOTAL	DIS- SOLVED	RECOV- ERABLE	RECOV- ERABLE	DIS- SOLVED	DIS- SOLVED
( $\mu\text{G/L}$ AS HG)	( $\mu\text{G/L}$ AS HG)	( $\mu\text{G/L}$ AS HG)	( $\mu\text{G/L}$ AS SE)	( $\mu\text{G/L}$ AS SE)	( $\mu\text{G/L}$ AS SE)	( $\mu\text{G/L}$ AS ZN)	( $\mu\text{G/L}$ AS ZN)	( $\mu\text{G/L}$ AS ZN)	( $\mu\text{G/L}$ AS ZN)
JUN 06...	<.1	--	<.1	1	<1	90	70	17	1660
22...	.2	--	<.1	<1	<1	30	30	5	308
JUL 05...	.5	.3	.2	<1	<1	30	20	7	39
18...	<.1	--	<.1	<1	<1	20	20	4	15
AUG 02...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--

Table 56.--Onsite measurements, trace constituents, and sediment data for station 385532107310400, Lower Hubbard Creek near Bowie (site 11), water year October 1981 to September 1982

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	PHOS-PHORUS,		ARSENIC TOTAL ( $\mu$ G/L AS AL)	ARSENIC DIS-SOLVED ( $\mu$ G/L AS AS)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AS)		CADMIUM TOTAL ( $\mu$ G/L AS CD)
				TOTAL	DIS-SOLVED			INUM, TOTAL ( $\mu$ G/L AS AS)	RECOV-ERABLE ( $\mu$ G/L AS AS)	
JUN 09...	95	89	7.8	12.0	.030	650	60	<1	<1	<1
23...	--	85	9.2	9.5	--	--	--	--	--	--
JUL 16...	2.2	332	9.1	21.0	.033	90	10	<1	<1	<1
AUG 06...	.50	495	7.8	18.0	--	--	--	--	--	--
19...	1.9	307	8.2	24.0	--	--	--	--	--	--
CHROMIUM, TOTAL, DIS-SOLVED ( $\mu$ G/L AS CR)				COBALT, TOTAL, DIS-SOLVED ( $\mu$ G/L AS CO)	COPPER, TOTAL, DIS-SOLVED ( $\mu$ G/L AS CU)	IRON, TOTAL, DIS-SOLVED ( $\mu$ G/L AS FE)	IRON, TOTAL, DIS-SOLVED ( $\mu$ G/L AS PB)	LEAD, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS PB)		
JUN 09...	5	<1	<1	<1	4	2	720	93	4	<1
23...	--	--	--	--	--	--	--	--	--	--
JUL 16...	<1	<1	<1	<1	3	1	150	32	<1	<1
AUG 06...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--

Table 56.--Onsite measurements, trace constituents, and sediment data for station 385532107310400, Lower Hubbard Creek near Bowie (site 11), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL, RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL, DIS- SOLVED ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS HG)	MERCURY DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL, DIS- SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL, DIS- SOLVED ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL, RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL, DIS- SOLVED ( $\mu\text{G/L}$ AS ZN)	SEDIMENT, MENT, CHARGE, SUS- PENDED (T/DAY)
JUN 09...	30	8	.2	.1	<1	20	51	39 10
23...	--	--	--	--	--	--	--	38 --
JUL 16...	10	10	.1	<.1	<1	80	5	4 .02
AUG 06...	--	--	--	--	--	--	--	23 .03
19...	--	--	--	--	--	--	15	.08

Table 57.--Onsite measurements, trace constituents, and sediment data for station 385532107310400, Lower Hubbard Creek near Bowie (site 11), Water year October 1982 to September 1983

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	PHOS-PHORUS, TOTAL ( $\mu$ G/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC DIS-SOLVED ( $\mu$ G/L AS AS)			
								DATE	JUN	02...: 422
09...:	242	125	8.0	11.0	.061	5900	5300			<1
20...:	261	90	8.1	11.0	.052	2000	1900			<1
30...:	200	100	7.9	16.0	.063	12000	12000			<1
JUL				15.0	.051	5300	5300			<1
20...:	64	190	8.2	15.0	.198	5000	5000			<1
AUG				22.5	--	--	--			--
03...:	7.8	330	8.2	25.0	--	--	--			--
17...:	4.5	360	8.3	--	--	--	--			--
 CHROMIUM										
CADMIUM TOTAL	SUSPENDED	CADMUM DIS-SOLVED	CHROMIUM, TOTAL	CHRO-MIUM, TOTAL	COBALT, TOTAL	COPPER, TOTAL	COPPER, SUS-PENDED			
RECOV-ERABLE ( $\mu$ G/L AS CD)	RECOV-ERABLE ( $\mu$ G/L AS CD)	RECOV-ERABLE ( $\mu$ G/L AS CD)	RECOV-ERABLE ( $\mu$ G/L AS CR)	RECOV-ERABLE ( $\mu$ G/L AS CR)	RECOV-ERABLE ( $\mu$ G/L AS CO)	RECOV-ERABLE ( $\mu$ G/L AS CO)	RECOV-ERABLE ( $\mu$ G/L AS CU)	RECOV-ERABLE ( $\mu$ G/L AS CU)	RECOV-ERABLE ( $\mu$ G/L AS CU)	RECOV-ERABLE ( $\mu$ G/L AS CU)
DATE	JUN	02...: 1	--	<1	26	<1	5	<1	14	10
09...: <1	--	1	1	12	<1	2	<1	5	3	2
20...: 1	0	1	<1	23	<1	40	<1	26	23	3
30...: 1	--	--	31	<1	3	<1	13	11	11	2
JUL				6	<1	3	<1	14	11	3
20...:	<1	--	<1	--	--	--	--	--	--	--
AUG				--	--	--	--			
03...:	--	--	--	--	--	--	--			
17...:	--	--	--	--	--	--	--			

Table 57.-Onsite measurements, trace constituents, and sediment data for station 385532107310400, Lower Hubbard Creek near Bowie (site 11), water year October 1982 to September 1983--Continued

DATE	IRON, SUS- PENDED				LEAD, SUS- PENDED				MANGA- NESE, SUS- PENDED				MANGA- NESE, DIS- RECOV- ERABLE			
	IRON, TOTAL RECOV- ERABLE ( $\mu$ G/L AS FE)	IRON, DIS- SOLVED ( $\mu$ G/L AS FE)	TOTAL RECOV- ERABLE ( $\mu$ G/L AS FE)	TOTAL RECOV- ERABLE ( $\mu$ G/L AS PB)	LEAD, DIS- SOLVED ( $\mu$ G/L AS PB)	LEAD, DIS- SOLVED ( $\mu$ G/L AS PB)	LEAD, RECOV- ERABLE ( $\mu$ G/L AS PB)	LEAD, RECOV- ERABLE ( $\mu$ G/L AS PB)	MANGA- NESE, RECOV- ERABLE ( $\mu$ G/L AS MN)	MANGA- NESE, RECOV- ERABLE ( $\mu$ G/L AS MN)	MANGA- NESE, RECOV- ERABLE ( $\mu$ G/L AS HG)	MANGA- NESE, DIS- RECOV- ERABLE ( $\mu$ G/L AS HG)				
JUN																
02...	7600	7400	160	7	3	4	180	170	9	<.1						
09...	2300	2200	94	6	4	2	60	50	8	<.1						
20...	9800	9600	170	10	7	3	240	220	24	1.9						
30...	4400	4300	60	11	9	2	120	110	8	.3						
JUL																
20...	6800	6700	120	4	--	<1	160	150	7	1.2						
AUG					--	--	--	--	--	--						
03...	--	--	--	--	--	--	--	--	--	--						
17...	--	--	--	--	--	--	--	--	--	--						
MERCURY																
SUS- PENDED	MERCURY DIS- SOLVED ( $\mu$ G/L AS HG)	SELE- NIUM, TOTAL ( $\mu$ G/L AS SE)	ZINC, TOTAL, SOLVED ( $\mu$ G/L AS SE)	ZINC, DIS- SOLVED ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	ZINC, RECOV- ERABLE ( $\mu$ G/L AS ZN)	
JUN																
02...	--	<.1	<1	<1	<1	50	40	14	434	494						
09...	--	<.1	<1	<1	<1	30	0	26	114	74						
20...	--	<.1	<1	<1	<1	60	40	24	542	382						
30...	--	<.1	<1	<1	<1	30	20	7	282	152						
JUL																
20...	.5	.7	<1	<1	--	--	--	--	--	--						
AUG					--	--	--	--	--	--						
03...	--	--	--	--	--	--	--	--	--	--						
17...	--	--	--	--	--	--	--	--	--	--						

Table 58.--Onsite measurements, trace constituents, and sediment data for station 385534107201900, Lower Coal Creek near Somerset (site 12), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC TOTAL SOLVED ( $\mu$ G/L AS AS)	CADMIUM TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)	
JUN 17...	--	58	7.3	11.5	.067	1500	40	1	<1
AUG 05...	79	77	7.7	19.0	.031	390	10	<1	<1
17...	61	96	8.1	16.5	--	--	--	--	--
 CHRO-MIUM, CHRO-MIUM, COBALT, COPPER, IRON, LEAD,									
	TOTAL	TOTAL	TOTAL	TOTAL	COPPER, DIS- RECOV-ERABLE	IRON, TOTAL RECOV-ERABLE ( $\mu$ G/L AS FE)	LEAD, TOTAL RECOV-ERABLE ( $\mu$ G/L AS PB)		
	RECOV-ERABLE	SOLVED	RECOV-ERABLE	SOLVED	SOLVED ( $\mu$ G/L AS CU)				
DATE	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CU)				
JUN 17...	5	<1	2	<1	3	<1	1800	32	4
AUG 05...	2	<1	<1	<1	3	1	300	13	5
17...	--	--	--	--	--	--	--	--	2

Table 58.--Onsite measurements, trace constituents, and sediment data for station 385534107201900, Lower Coal Creek near Somerset (site 12), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	MERCURY DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, DIS- SOLVED ( $\mu\text{G/L}$ AS SE)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, DIS- SOLVED ( $\mu\text{G/L}$ AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
JUN 17...	50	9	.8	.8	<1	<1	30	15
AUG 05...	10	4	.1	<.1	<1	<1	30	16
17...	--	--	--	--	--	--	--	8
								1.3

Table 59.--Onsite measurements, trace constituents, and sediment data for station 385534107201900, Lower Coal Creek near Somerset (site 12), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	PHOSPHORUS,			ARSENIC			CADMIUM			
					TOTAL ERABLE	TOTAL (MG/L AS P)	PENDED RECOV.	TOTAL ERABLE	SOLVED ( $\mu$ G/L AS AL)	TOTAL ( $\mu$ G/L AS AL)	INUM, SUS-	INUM, DIS-	SOLVED ( $\mu$ G/L AS AS)	TOTAL ( $\mu$ G/L AS AS)
JUN 07...	978	95	7.8	7.0	.051	6700	6500	180	2	<1	1	<1	1	1
23...	8.0	70	7.9	--	.083	14000	14000	80	3	<1	1	<1	1	1
JUL 07...	536	70	8.3	12.0	.057	1500	1500	50	1	<1	1	<1	<1	1
19...	267	75	8.0	14.0	.027	720	690	30	<1	1	1	<1	<1	1
AUG 01...	145	92	7.8	18.0	--	--	--	--	--	--	--	--	--	--
17...	84	110	7.8	13.5	--	--	--	--	--	--	--	--	--	--
CADMIUM SUS-PENDED	CADMIUM DIS-SOLVED	CHROMIUM, TOTAL RECOVERABLE ( $\mu$ G/L AS CD)	CHROMIUM, PENDED ERABLE ( $\mu$ G/L AS CR)	CHROMIUM, DIS- RECOV. ( $\mu$ G/L AS CR)	CHROMIUM, SOLVED ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, PENDED ERABLE ( $\mu$ G/L AS CO)	SUS-COBALT, RECOVERABLE ( $\mu$ G/L AS CO)	SUS-COBALT, SOLVED ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOVERABLE ( $\mu$ G/L AS CO)	COPPER, SUS-PENDED	COPPER, DIS-SOLVED	COPPER, RECOVERABLE ( $\mu$ G/L AS CU)	
JUN 07...	0	2	20	--	<1	6	5	1	14	10	10	25	23	23
23...	--	<1	18	17	1	7	--	<1	--	--	--	--	--	--
JUL 07...	--	<1	6	--	<1	1	0	1	13	--	--	--	--	--
19...	0	3	3	--	<1	<1	--	<1	5	5	2	--	--	--
AUG 01...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 59.--Onsite measurements, trace constituents, and sediment data for station 385534107201900, Lower Coal Creek near Somerset (site 12), water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGANESE,			
	IRON, TOTAL	SUS- PENDED	IRON, DIS- RECOV- ERABLE	IRON, SOLVED ( $\mu\text{G}/\text{L}$ AS FE)	LEAD, TOTAL	PENDED	LEAD, RECOV- ERABLE	SUS- PENDED	LEAD, RECOV- ERABLE	TOTAL	SUS- PENDED	MANGANESE,
JUN 07...	4	13000	13000	59	15	8	7	7	230	230	5	5
23...	2	18000	18000	72	17	14	3	490	490	5		
JUL 07...	<1	1600	1600	19	7	4	3	40	40	3		
19...	3	710	690	24	<1	--	<1	20	3	17		
AUG 01...	--	--	--	--	--	--	--	--	--	--		
17...	--	--	--	--	--	--	--	--	--	--		
 MERCURY												
DATE	MERCURY TOTAL	SUS- PENDED	MERCURY DIS- RECOV- ERABLE	MERCURY SOLVED ( $\mu\text{G}/\text{L}$ AS HG)	SELE- NIUM, TOTAL ( $\mu\text{G}/\text{L}$ AS SE)	SELE- NIUM, SOLVED ( $\mu\text{G}/\text{L}$ AS SE)	ZINC, TOTAL, SOLVED ( $\mu\text{G}/\text{L}$ AS ZN)					
	( $\mu\text{G}/\text{L}$ AS HG)											
JUN 07...	.2	--	<.1	1	<1	90	80	13	711	1880		
23...	.1	--	<.1	1	<1	80	60	16	1050	23		
JUL 07...	.2	--	<.1	<1	<1	20	0	14	89	129		
19...	.6	.4	.2	<1	<1	50	0	41	28	20		
AUG 01...	--	--	--	--	--	--	--	--	38	15		
17...	--	--	--	--	--	--	--	--	21	4.8		

Table 60.--Onsite measurements, trace constituents, and sediment data for station 385538107202400, Lower Anthracite Creek near Somerset (site 13), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-INUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS P)	ALUM-INUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC DIS-SOLVED TOTAL ( $\mu$ G/L AS AS)	CADMIUM TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CD)	
APR 15...	497	56	8.4	6.5	--	2800	90	<1	1
MAY 06...	941	56	7.7	8.0	.110	2300	80	1	<1
JUN 10...	1010	44	8.0	11.0	.013	960	70	<1	<1
22...	926	39	7.1	7.0	--	--	--	--	--
AUG 17...	75	105	8.2	17.5	--	--	--	--	--
APR 15...	8	<1	1	<1	4	5	1900	50	5
MAY 06...	8	<1	1	<1	6	4	1800	40	9
JUN 10...	4	<1	<1	<1	16	2	930	51	46
22...	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--
CHRO-MIUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CU)	COPPER, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CU)	IRON, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS FE)	IRON, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS FE)	LEAD, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS PB)	LEAD, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS PB)
APR 15...	8	<1	1	<1	4	5	1900	50	5
MAY 06...	8	<1	1	<1	6	4	1800	40	9
JUN 10...	4	<1	<1	<1	16	2	930	51	46
22...	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--

Table 60.--Onsite measurements, trace constituents, and sediment data for station 385538107202400, Lower Anthracite Creek near Somerset (site 13), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS HG)	MERCURY TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	MERCURY DIS- SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL SOLVED ( $\mu\text{G/L}$ AS ZN)	SEDIMENT, DIS- CHARGE, SUS- PENDED (MG/L) (T/DAY)
APR 15....	70	10	.1	<.1	<1	<1	20	20
MAY 06....	80	10	.1	<.1	<1	<1	30	20
JUN 10....	30	5	.1	<.1	<1	<1	50	24
22....	--	--	--	--	--	--	--	104
AUG 17....	--	--	--	--	--	--	--	264
							7	54
								147
								61
								153
								1.4

Table 61.--Onsite measurements, trace constituents, and sediment data for station 385538107202400, Lower Anthracite Creek near Somerset (site 13), Water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPERATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS AL)	ALUM-INUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC DIS-SOLVED TOTAL ( $\mu$ G/L AS AS)		
JUN										
02... 07... 23... JUL	1510 1130 1480 07... 19... AUG	60 65 51 52 58 250 111	8.0 7.8 7.8 8.3 8.0 7.7 7.7	6.0 8.0 10.0 13.5 14.5 20.0 13.5	.041 -- .068 .030 .003 -- --	7900 1800 5000 810 270 760 50	140 70 60 50 30 1 1	<1 <1 <1 <1 <1 -- --		
CADMIUM	SUS-PENDED	CADMUM	DIS-SOLVED	CHRO-MIUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CD)	CHRO-MIUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL SUS-PENDED RECOV-ERABLE ( $\mu$ G/L AS CU)	
JUN										
02... 07... 23... JUL	<1 1 1 07... 19... AUG	-- 0 0 -- -- --	2 1 3 <1 <1 --	10 8 9 6 2 --	-- -- 0 -- -- --	<1 <1 20 <1 <1 --	5 2 3 1 0 --	<1 <1 <1 1 <1 --	7 6 10 4 2 --	

Table 61.--Onsite measurements, trace constituents, and sediment data for station 385538107202400, Lower Anthracite Creek near Somerset (site 13), water year October 1982 to September 1983--Continued

DATE	COPPER, SUS- PENDED	IRON, IRON, TOTAL RECOV- ERABLE			LEAD, IRON, TOTAL RECOV- ERABLE			LEAD, IRON, TOTAL RECOV- ERABLE			MANGA- NESE, SUS- PENDED	
		( $\mu\text{G/L}$ ) (AS CU)	( $\mu\text{G/L}$ ) (AS FE)	( $\mu\text{G/L}$ ) (AS FE)	( $\mu\text{G/L}$ ) (AS FE)	( $\mu\text{G/L}$ ) (AS FE)	( $\mu\text{G/L}$ ) (AS PB)	( $\mu\text{G/L}$ ) (AS PB)	( $\mu\text{G/L}$ ) (AS PB)	( $\mu\text{G/L}$ ) (AS MN)	( $\mu\text{G/L}$ ) (AS MN)	
JUN 02...	5	2	7100	7100	49	8	4	4	4	230	220	
07...	2	4	1700	1700	39	9	2	7	60	60		
23...	6	4	5200	5100	64	9	7	2	180	170		
JUL 07...	0	5	660	630	29	8	5	3	20	20		
19...	1	1	250	220	32	<1	--	<1	10	5		
AUG 01...	--	--	--	--	--	--	--	--	--	--		
17...	--	--	--	--	--	--	--	--	--	--		
MANGA- NESE, DIS- SOLVED	MERCURY TOTAL RECOV- ERABLE	MERCURY DIS- SOLVED	SELE- NIUM, TOTAL ( $\mu\text{G/L}$ ) (AS HG)	SELE- NIUM, TOTAL ( $\mu\text{G/L}$ ) (AS SE)	ZINC, TOTAL, SOLVED ( $\mu\text{G/L}$ ) (AS SE)	ZINC, TOTAL, SOLVED ( $\mu\text{G/L}$ ) (AS ZN)						
JUN 02...	6	.1	<.1	<1	<1	50	30	21	504	2050		
07...	4	.2	<.1	1	<1	70	60	10	118	360		
23...	6	.2	<.1	<1	<1	40	30	14	348	1390		
JUL 07...	3	.2	<.1	<1	<1	40	10	26	59	161		
19...	5	.1	<.1	<1	<1	20	0	26	10	12		
AUG 01...	--	--	--	--	--	--	--	--	92	62		
17...	--	--	--	--	--	--	--	--	7	2.1		

Table 62.--Onsite measurements, trace constituents, and sediment data for station 385626107212000,  
Muddy Creek below Paonia Reservoir (site 14), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE (μS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-INUM, TOTAL RECOV-ERABLE (μG/L AS AL)			ARSENIC TOTAL SOLVED (μG/L AS AS)			CADMIUM TOTAL RECOV- ERABLE (μG/L AS CD)		
					ALUM- INUM, TOTAL RECOV- ERABLE (μG/L AS AL)	ALUM- INUM, TOTAL RECOV- ERABLE (μG/L AS AL)	ARSENIC TOTAL SOLVED (μG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (μG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (μG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (μG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (μG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (μG/L AS CD)	
APR 15...	708	--	--	--	12000	80	1	1	<1	<1	<1	<1	
AUG 02...	48	214	8.7	20.5	--	--	--	--	--	--	--	--	
CHRO-MIUM, TOTAL, RECOV- ERABLE (μG/L AS CR)	CHRO-MIUM, TOTAL, RECOV- ERABLE (μG/L AS CO)	COBALT, TOTAL, RECOV- ERABLE (μG/L AS CO)	COBALT, TOTAL, RECOV- ERABLE (μG/L AS CO)	COPPER, TOTAL, RECOV- ERABLE (μG/L AS CU)	COPPER, TOTAL, RECOV- ERABLE (μG/L AS CU)	IRON, TOTAL, RECOV- ERABLE (μG/L AS FE)	IRON, TOTAL, RECOV- ERABLE (μG/L AS FE)	LEAD, TOTAL, RECOV- ERABLE (μG/L AS PB)	LEAD, TOTAL, RECOV- ERABLE (μG/L AS PB)	LEAD, TOTAL, RECOV- ERABLE (μG/L AS PB)	LEAD, TOTAL, RECOV- ERABLE (μG/L AS PB)		
APR 15...	13	1	2	<1	11	3	5700	50	6	6	<1	<1	
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	--	
MANGANESE, TOTAL, RECOV- ERABLE (μG/L AS MN)	MANGANESE, TOTAL, RECOV- ERABLE (μG/L AS HG)	MERCURY TOTAL, RECOV- ERABLE (μG/L AS HG)	MERCURY TOTAL, RECOV- ERABLE (μG/L AS HG)	SELENIUM, TOTAL, RECOV- ERABLE (μG/L AS SE)	SELENIUM, TOTAL, RECOV- ERABLE (μG/L AS SE)	ZINC, TOTAL, RECOV- ERABLE (μG/L AS ZN)	ZINC, TOTAL, RECOV- ERABLE (μG/L AS ZN)	SEDIMENT, TOTAL, CHARGE, SUSPENDED (MG/L T/DAY)	SEDIMENT, TOTAL, CHARGE, SUSPENDED (MG/L T/DAY)	SEDIMENT, TOTAL, CHARGE, SUSPENDED (MG/L T/DAY)	SEDIMENT, TOTAL, CHARGE, SUSPENDED (MG/L T/DAY)		
APR 15...	480	340	.1	<.1	<1	1	40	10	327	625	4	.52	
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	--	

Table 63.-Onsite measurements, trace constituents, and sediment data for station 385626107212000, Muddy Creek below Paonia Reservoir (site 14), water year October 1982 to September 1983

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	DATE	SPE-CIFIC CON-	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL (µG/L AS AL)	ALUM-INUM, SUS-PENDED (µG/L AS AL)	ARSENIC, TOTAL (µG/L AS AS)	ARSENIC, SUS-PENDED (µG/L AS AS)
		ANCE (µS/CM)	DUCT-ANCE (µS/CM)	ATURE (°C)	RECOV-ERABLE (µG/L AS P)	RECOV-ERABLE (µG/L AS AL)	RECOV-ERABLE (µG/L AS AL)	RECOV-ERABLE (µG/L AS CO)	RECOV-ERABLE (µG/L AS CO)
JUN 02...	2520	140	8.0	8.0	.153	8200	8000	230	1
09....	1630	170	8.0	11.0	.073	3700	3500	180	1
22....	1170	130	--	13.0	.041	2800	2700	60	--
30....	1090	132	7.6	14.0	.050	2300	2300	50	--
JUL 19....	191	145	8.3	20.5	.021	710	660	50	1
AUG 02....	191	190	8.5	21.5	--	--	--	--	0
17....	85	215	8.2	23.5	--	--	--	--	1
CADMUM		CADMUM SUS-PENDED	CADMUM TOTAL	CHRO-MIUM, RECOV-ERABLE (µG/L AS CD)	COBALT, CHRO-MIUM, RECOV-ERABLE (µG/L AS CR)	COBALT, CHRO-MIUM, RECOV-ERABLE (µG/L AS CO)	COBALT, SUS-PENDED (µG/L AS CO)	COPPER, TOTAL (µG/L AS CU)	COPPER, SUS-PENDED (µG/L AS CU)
TOTAL		PENDED	DIS-SOLVED	RECOV-ERABLE (µG/L AS CD)	TOTAL (µG/L AS CR)	TOTAL (µG/L AS CO)	PENDED (µG/L AS CO)	PENDED (µG/L AS CU)	PENDED (µG/L AS CU)
RECOV-ERABLE		RECOV-ERABLE (µG/L AS CD)	RECOV-ERABLE (µG/L AS CR)	RECOV-ERABLE (µG/L AS CO)	RECOV-ERABLE (µG/L AS CO)	RECOV-ERABLE (µG/L AS CO)	RECOV-ERABLE (µG/L AS CO)	RECOV-ERABLE (µG/L AS CU)	RECOV-ERABLE (µG/L AS CU)
DATE									
JUN 02....	1	0	2	17	<1	4	3	1	13
09....	<1	--	<1	22	<1	2	--	<1	7
22....	1	0	1	7	<1	1	--	<1	11
30....	1	--	<1	7	<1	2	1	1	7
JUL 19....	1	0	2	2	<1	<1	--	<1	6
AUG 02....	--	--	--	--	--	--	--	--	--
17....	--	--	--	--	--	--	--	--	--

Table 63.--Onsite measurements, trace constituents, and sediment data for station 385626107212000, Muddy Creek below Paonia Reservoir (site 14), water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGANESE,			
	IRON, TOTAL	SUS- PENDED	IRON, DIS- SOLVED	LEAD, TOTAL	PENDED	LEAD, DIS- RECOV-	PENDED	LEAD, SUS- RECOV-	NESE, SUS-	DIS- RECOV.	DIS- SOLVED	MANGANESE, AS MN)
( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS CU)	( $\mu\text{G/L}$ ) AS FE)	( $\mu\text{G/L}$ ) AS FE)	( $\mu\text{G/L}$ ) AS PB)	( $\mu\text{G/L}$ ) AS MN)								
JUN 02...	4	7200	7100	70	7	2	5	200	200	3	3	
09...	3	3200	3100	76	7	4	3	80	80	4	4	
22...	4	2400	2300	77	6	4	2	70	70	5	5	
30...	3	2100	2100	25	15	12	3	60	60	5	5	
JUL 19...	3	620	580	38	4	--	<1	20	20	3	3	
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	
17...	--	--	--	--	--	--	--	--	--	--	--	
 MERCURY												
SUS- PENDED	MERCURY RECOV- ERABLE	SELE- Nium, SOLVED	SELE- Nium, TOTAL	SUS- PENDED	ZINC, DIS- RECOV-	ZINC, DIS- RECOV-	SUS- PENDED	ZINC, DIS- RECOV-	ZINC, DIS- RECOV-	SUS- PENDED	ZINC, DIS- RECOV-	
( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS HG)	( $\mu\text{G/L}$ ) AS HG)	( $\mu\text{G/L}$ ) AS SE)	( $\mu\text{G/L}$ ) AS SE)	( $\mu\text{G/L}$ ) AS SE)	( $\mu\text{G/L}$ ) AS ZN)							
JUN 02...	<.1	--	<.1	<1	<1	50	40	12	372	2530		
09...	.2	--	<.1	<1	<1	20	0	29	86	378		
22...	1.2	--	<.1	<1	<1	30	20	15	129	408		
30...	.2	--	<.1	<1	<1	20	0	23	239	703		
JUL 19...	.2	.1	.1	<1	<1	50	30	18	13	6.7		
AUG 02...	--	--	--	--	--	--	--	--	--	12	6.2	
17...	--	--	--	--	--	--	--	--	5	1.1		

Table 64.--Onsite measurements, trace constituents, and sediment data for station 385712107162600, Upper Anthracite Creek near Somerset (site 15), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE (µS/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUMINUM, TOTAL, RECOV-ERABLE (µG/L AS P)	PHOS-PHORUS, TOTAL, RECOV-ERABLE (µG/L AS AL)	ARSENIC, TOTAL, SOLVED (µG/L AS AS)	CADMIUM, TOTAL, RECOV-ERABLE (µG/L AS CD)	CADMIUM, TOTAL, SOLVED (µG/L AS CD)
APR 15...	315	91	--	6.5	--	2700	80	<1	<1
JUN 17...	230	29	7.5	10.0	.018	620	60	<1	1
AUG 17...	74	109	7.7	15.0	--	--	--	--	--
CHROMIUM, TOTAL, RECOV-ERABLE SOLVED (µG/L AS CR)	CHROMIUM, TOTAL, RECOV-ERABLE SOLVED (µG/L AS CR)	COBALT, TOTAL, RECOV-ERABLE SOLVED (µG/L AS CO)	COBALT, TOTAL, RECOV-ERABLE SOLVED (µG/L AS CO)	COPPER, TOTAL, RECOV-ERABLE SOLVED (µG/L AS CU)	COPPER, TOTAL, RECOV-ERABLE SOLVED (µG/L AS CU)	IRON, TOTAL, RECOV-ERABLE SOLVED (µG/L AS FE)	IRON, TOTAL, RECOV-ERABLE SOLVED (µG/L AS FE)	LEAD, TOTAL, RECOV-ERABLE SOLVED (µG/L AS PB)	LEAD, TOTAL, RECOV-ERABLE SOLVED (µG/L AS PB)
APR 15...	7	<1	<1	<1	3	2	1700	70	2
JUN 17...	4	<1	<1	1	3	1	490	32	4
AUG 17...	--	--	--	--	--	--	--	--	--

Table 64.--Onsite measurements, trace constituents, and sediment data for station 385712107162600, Upper Anthracite Creek near Somerset (site 15), water year October 1981 to September 1982--Continued

MANGA- NESE, TOTAL RECOV- ERABLE ( $\mu$ G/L AS MN)	MANGA- NESE, TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu$ G/L AS MN)	MERCURY TOTAL DIS- RECOV- ERABLE SOLVED ( $\mu$ G/L AS HG)	MERCURY DIS- NIMUM, TOTAL SOLVED ( $\mu$ G/L AS SE)	SELE- NIUM, TOTAL SOLVED ( $\mu$ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE ( $\mu$ G/L AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L T/DAY)			
APR 15....	50	10	.1	<.1	1	20	10	76	65
JUN 17....	30	2	.1	.1	<1	30	40	16	9.9
AUG 17....	--	--	--	--	--	--	--	8	1.6

Table 65.--Onsite measurements, trace constituents, and sediment data for station 385712107162600, Upper Anthracite Creek near Somerset (site 15), water year October 1982 to September 1983

STREAM- FLOW, INSTAN- TANEOUS DATE	SPE- CIFIC CON- DUCT- ANCE (FT <sup>3</sup> /S) ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE ( $^{\circ}$ C)	ALUM- INUM, SUS- PENDED RECOV- ERABLE TOTAL ( $\mu$ G/L AS P)	ALUM- INUM, SUS- PENDED RECOV- ERABLE TOTAL ( $\mu$ G/L AS AL)	ALUM- INUM, SUS- PENDED RECOV- ERABLE TOTAL ( $\mu$ G/L AS AL)	ALUM- INUM, SUS- PENDED RECOV- ERABLE TOTAL ( $\mu$ G/L AS AS)	ARSENIC SUS- PENDED RECOV- ERABLE TOTAL ( $\mu$ G/L AS AS)	ARSENIC SUS- PENDED RECOV- ERABLE TOTAL ( $\mu$ G/L AS AS)
JUN 07...	1140	65	7.7	11.5	.029	1400	40	<1	--
22...	1650	58	7.9	16.0	>.500	5000	40	1	--
JUL 05...	936	56	7.7	14.0	.028	660	30	1	--
18...	369	62	7.8	17.0	.007	320	290	1	0
AUG 02...	203	85	7.7	14.5	--	--	--	--	--
JUN									
07...	<1	--	<1	9	--	<1	2	1	1
22...	1	0	1	3	0	3	3	2	1
JUL									
05...	1	0	1	6	--	<1	1	0	1
18...	<1	--	<1	6	--	<1	<1	--	<1
AUG									
02...	--	--	--	--	--	--	--	--	--
CADMUM									
CADMIUM TOTAL	SUS- PENDED	CADMUM DIS- ERABLE	TOTAL SOLVED	CHRO- MIUM, SUS- PENDED	CHRO- MIUM, SUS- PENDED	CHRO- MIUM, SUS- PENDED	COBALT, TOTAL RECOV- ERABLE	SUS- PENDED	COPPER, TOTAL RECOV- ERABLE
( $\mu$ G/L AS CD)	( $\mu$ G/L AS CD)	( $\mu$ G/L AS CD)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CR)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CO)	( $\mu$ G/L AS CU)
JUN									
07...	<1	--	<1	9	--	<1	2	1	8
22...	1	0	1	3	0	3	3	2	9
JUL									
05...	1	0	1	6	--	<1	1	0	10
18...	<1	--	<1	6	--	<1	<1	--	2
AUG									
02...	--	--	--	--	--	--	--	--	--

Table 65.--Onsite measurements, trace constituents, and sediment data for station 385712107162600, Upper Anthracite Creek near Somerset (site 15), water year October 1982 to September 1983--Continued

DATE	COPPER, SUS- PENDED			IRON, IRON, TOTAL, PENDED			IRON, IRON, TOTAL, DIS- RECOV- ERABLE			LEAD, IRON, TOTAL, DIS- RECOV- ERABLE			LEAD, IRON, TOTAL, DIS- RECOV- ERABLE			MANGA- NESE, IRON, TOTAL, PENDED		
	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS CU)	DIS- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS FE)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS FE)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS FE)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS FE)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS PB)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS PB)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS PB)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS PB)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS PB)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS MN)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS ZN)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS ZN)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS ZN)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS ZN)	SOLVED ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS ZN)	RECOV- ERABLE ( $\mu\text{G/L}$ ) ( $\mu\text{G/L}$ ) AS ZN)	
JUN 07...	6	2	1200	1100	120	24	22	22	22	22	2	40	40	40	40	40	40	40
22...	7	2	5500	5400	54	23	22	22	22	22	1	200	200	200	200	200	200	200
JUL 05...	9	1	610	550	62	8	7	7	7	7	1	20	20	20	20	20	20	20
18...	1	1	190	160	26	<1	--	--	--	--	<1	10	10	10	10	10	10	10
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 07...	4	.2	<.1	1	<1	30	20	20	20	20	9	84	84	84	84	84	84	84
22...	9	1.4	<.1	<1	<1	50	40	40	40	40	7	419	419	419	419	419	419	419
JUL 05...	5	.2	<.1	<1	<1	20	0	0	0	0	18	50	50	50	50	50	50	50
18...	3	.1	<.1	<1	<1	20	10	10	10	10	9	6	6	6	6	6	6	6
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	29	29	29	29	29	29	29
JUN 07...	4	.2	<.1	1	<1	30	20	20	20	20	9	84	84	84	84	84	84	84
22...	9	1.4	<.1	<1	<1	50	40	40	40	40	7	419	419	419	419	419	419	419
JUL 05...	5	.2	<.1	<1	<1	20	0	0	0	0	18	50	50	50	50	50	50	50
18...	3	.1	<.1	<1	<1	20	10	10	10	10	9	6	6	6	6	6	6	6
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 66.--Onsite measurements, trace constituents, and sediment data for station 385741107315100, Upper Hubbard Creek near Bowie (site 16), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	ALUM-INUM,			ARSENIC			CADMIUM		
					PHOS-PHORUS, TOTAL (MG/L AS P)	DIS-ERABLE TOTAL (MG/L AS AL)	SOLVED (µG/L AS AL)	DIS-ERABLE TOTAL (µG/L AS AS)	SOLVED (µG/L AS AS)	RECOV-ERABLE (µG/L AS FE)	TOTAL (µG/L AS FE)	RECOV-ERABLE (µG/L AS PB)	TOTAL (µG/L AS PB)
MAY 20...	172	113	7.6	5.5	.070	3300	50	<1	<1	2	2	<1	
JUN 09...	98	80	8.0	10.0	.053	690	90	<1	<1	<1	2	<1	
JUN 23...	87	73	8.9	9.5	.030	950	80	<1	<1	<1	2	<1	
JUL 16...	5.6	233	8.9	18.5	--	--	--	--	--	--	--	--	
AUG 06...	2.5	265	8.2	20.0	--	--	--	--	--	--	--	--	
AUG 19...	4.6	208	8.2	20.5	--	--	--	--	--	--	--	--	
CHROMIUM, CHRO-MIUM, TOTAL, DIS-SOLVED (µG/L AS CR)													
					COBALT, TOTAL, RECOV-ERABLE (µG/L AS CO)	COBALT, DIS-SOLVED (µG/L AS CO)	COPPER, TOTAL, RECOV-ERABLE (µG/L AS CU)	COPPER, DIS-SOLVED (µG/L AS CU)	COPPER, SOLVED (µG/L AS CU)	IRON, TOTAL, RECOV-ERABLE (µG/L AS FE)	IRON, TOTAL, RECOV-ERABLE (µG/L AS FE)	LEAD, TOTAL, RECOV-ERABLE (µG/L AS PB)	LEAD, TOTAL, RECOV-ERABLE (µG/L AS PB)
MAY 20...	8	<1	2	<1	7	2	3800	100	2	4			
JUN 09...	2	<1	<1	<1	2	1	700	130	2	<1			
JUN 23...	3	<1	<1	1	4	2	1200	91	4	2			
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 06...	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 19...	--	--	--	--	--	--	--	--	--	--	--	--	

Table 66.--Onsite measurements, trace constituents, and sediment data for station 385741107315100, Upper Hubbard Creek near Bowie (site 16), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, NESE, DIS- SOLVED ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS HG)	MERCURY DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL SOLVED ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	ZINC, DIS- SOLVED ( $\mu\text{G/L}$ AS ZN)	SEDIMENT, CHARGE, SUS- PENDED (T/DAY)	SEDIMENT, DIS- CHARGE, SUS- PENDED (MG/L)	
MAY 20...	110	6	.1	<.1	<1	<1	30	30	168	78
JUN 09...	30	9	.2	<.1	<1	<1	20	41	30	7.9
23...	40	5	8.0	.8	<1	<1	40	12	67	16
JUL 16...	--	--	--	--	--	--	--	--	3	.05
AUG 06...	--	--	--	--	--	--	--	--	12	.08
19...	--	--	--	--	--	--	--	--	52	.65

Table 67.--Onsite measurements, trace constituents, and sediment data for station 385741107315100, Upper Hubbard Creek near Bowie (site 16), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (DUCT-ANCE) ( $\mu$ S/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	PHOSPHORUS, TOTAL (MG/L AS P)	ALUMINUM, TOTAL ( $\mu$ G/L AS AL)	ALUMINUM, INUM, SUSPENDED RECOVERABLE ( $\mu$ G/L AS AL)	ARSENIC, TOTAL ( $\mu$ G/L AS AS)	ARSENIC, DISOLVED ( $\mu$ G/L AS AS)
JUN 09...	240	110	7.9	6.0	.064	6800	6700	120	1 <1
20...	237	76	7.7	14.0	.075	12000	11000	740	2 <1
JUL 20...	61	170	8.1	15.0	.080	1500	1400	70	1 <1
AUG 03...	8.8	230	8.1	19.0	--	--	--	--	--
17...	4.7	300	8.5	22.0	--	--	--	--	--
CADMIUM	CADMUM TOTAL	CHROMIUM, TOTAL RECOVERABLE SOLVED ( $\mu$ G/L AS CD)	CHROMIUM, SUSPENDED RECOVERABLE ( $\mu$ G/L AS CR)	CHROMIUM, TOTAL RECOVERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOVERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL RECOVERABLE ( $\mu$ G/L AS CU)	COPPER, SUSPENDED RECOVERABLE ( $\mu$ G/L AS CU)	COPPER, DISOLVED ERABLE ( $\mu$ G/L AS CU)
JUN 09...	1	<1	34	--	<1	6	<1	24	16 8
20...	1	<1	21	20	1	6	<1	31	27 4
JUL 20...	1	<1	3	--	<1	1	<1	11	7 4
AUG 03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

Table 67.--Onsite measurements, trace constituents, and sediment data for station 385741107315100, Upper Hubbard Creek near Bowie (site 16), water year October 1982 to September 1983--Continued

	IRON, IRON, TOTAL PENDED	SUS- RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS FE)	IRON, DIS- SOLVED ( $\mu\text{G}/\text{L}$ AS FE)	LEAD, TOTAL RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS FE)	LEAD, SUS- RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS PB)	LEAD, DIS- SOLVED ( $\mu\text{G}/\text{L}$ AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS MN)	MANGA- NESE, SUS- PENDED RECOV. SOLVED ( $\mu\text{G}/\text{L}$ AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS HG)
JUN									
09...	8700	8600	77	11	6	5	180	170	6
20...	11000	11000	120	17	14	3	280	250	.2
JUL									2.0
20...	1900	1800	89	<1	--	<1	60	60	.2
AUG									
03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
MERCURY									
SUS- PENDED	MERCURY DIS- SOLVED ( $\mu\text{G}/\text{L}$ AS HG)		SELF- NIUM, TOTAL SOLVED ( $\mu\text{G}/\text{L}$ AS HG)	SELF- NIUM, DIS- SOLVED ( $\mu\text{G}/\text{L}$ AS SE)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS ZN)	ZINC, DIS- SOLVED RECOV. SOLVED ( $\mu\text{G}/\text{L}$ AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE ( $\mu\text{G}/\text{L}$ AS ZN)	ZINC, DIS- SOLVED RECOV. SOLVED ( $\mu\text{G}/\text{L}$ AS ZN)
DATE									
JUN									
09...	--	<.1	<1	<1	<1	60	40	21	372
20...	1.8	.2	<1	<1	70	60	7	668	241
JUL									427
20...	--	<.1	<1	<1	20	20	5	111	18
AUG									
03...	--	--	--	--	--	--	--	11	.26
17...	--	--	--	--	--	--	--	5	.06

Table 68.--Onsite measurements, trace constituents, and sediment data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), water year October 1981 to September 1982

DATE	SPE- CIFIC CON- DUCT- ANCE (FT <sup>3</sup> /S) ( $\mu$ S/CM)	(STAND- ARD UNITS)	PH TEMPER- ATURE (°C)	ALUM- INUM, TOTAL RECOV- ERABLE ( $\mu$ G/L AS AL)	ARSENIC TOTAL DIS- SOLVED ( $\mu$ G/L AS AS)	CADMIUM TOTAL RECOV- ERABLE ( $\mu$ G/L AS CD)	
APR 13...	375	190	8.7	9.0	25000	120	1
AUG 02...	60	285	8.2	19.5	--	--	--
19...	58	305	8.2	18.5	--	--	--
CHRO- MUM, TOTAL RECOV- ERABLE ( $\mu$ G/L AS CR)	CHRO- MUM, TOTAL RECOV- ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV- ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV- ERABLE ( $\mu$ G/L AS CU)	COPPER, TOTAL RECOV- ERABLE ( $\mu$ G/L AS CU)	IRON, TOTAL RECOV- ERABLE ( $\mu$ G/L AS FE)	LEAD, TOTAL RECOV- ERABLE ( $\mu$ G/L AS PB)	
APR 13...	31	2	10	<1	38	4	20000
AUG 02...	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--

Table 68.--Onsite measurements, trace constituents, and sediment data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), water year October 1981 to September 1982--Continued

DATE	MANGANESE, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGANESE, TOTAL DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MERCURY TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	MERCURY TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS HG)	SELENIUM, TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS SE)	SELENIUM, TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS ZN)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS SE)	ZINC, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS ZN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR 13...	920	20	.1	<.1	<1	1	140	10	3660
AUG 02...	--	--	--	--	--	--	--	--	3710
19...	--	--	--	--	--	--	--	--	960
									9.4 150

Table 69.-Onsite measurements, trace constituents, and sediment data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), water year October 1982 to September 1983

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-SUSPENDED				ARSENIC-SUSPENDED			
					PHOS-PHORUS, TOTAL (MG/L AS P)	RECOV-ERABLE ( $\mu$ G/L AS AL)	DIS-RECov. ( $\mu$ G/L AS AL)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	ALUM-SUSPENDED	ARSENIC TOTAL ( $\mu$ G/L AS AS)	DIS-SOLVED ( $\mu$ G/L AS AS)	ARSENIC TOTAL ( $\mu$ G/L AS AS)
JUN 01...	2500	140	8.1	12.0	.117	24000	150	1	--	--	<1	--
08...	2010	160	8.1	11.0	.068	7200	7100	110	1	--	<1	--
22...	1430	120	8.2	15.0	.124	6500	6400	80	1	0	1	--
30...	1090	128	7.6	9.5	.054	4700	4600	120	1	--	<1	--
JUL 21...	214	220	8.2	17.0	.155	3300	3300	30	1	--	--	<1
AUG 02...	150	235	8.3	20.0	--	--	--	--	--	--	--	--
16...	98	240	8.4	15.5	--	--	--	--	--	--	--	--
CADMUM SUS-	TOTAL PENDED	CADMUM DIS-	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CU)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CU)	COBALT, TOTAL RECOV-ERABLE ( $\mu$ G/L AS CU)	
JUN 01...	2	0	6	22	--	<1	10	13	1	33	12	--
08...	4	2	2	89	--	<1	7	--	<1	24	19	--
22...	1	--	<1	14	13	1	4	--	<1	12	9	--
30...	1	0	2	12	10	2	4	3	1	24	20	--
JUL 21...	<1	--	<1	7	--	<1	2	--	<1	9	7	--
AUG 02...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--

Table 69.--Onsite measurements, trace constituents, and sediment data for station 385903107210800, Muddy Creek above Paonia Reservoir (site 17), water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGA-			
	IRON, TOTAL	SUS- PENDED	IRON, DIS- RECOV- ERABLE	IRON, SOLVED ( $\mu\text{G/L}$ AS FE)	LEAD, TOTAL	LEAD, DIS- RECOV- ERABLE	LEAD, SOLVED	LEAD, ERABLE ( $\mu\text{G/L}$ AS PB)	NESE, TOTAL	SUS- PENDED	NESE, DIS- RECOV- ERABLE ( $\mu\text{G/L}$ AS MN)	MANGA- NESE, SUS- PENDED
JUN 01...	21	24000	24000	62	27	13	14	1100	1100	14		
08...	5	7000	6900	65	18	13	5	280	270	13		
22...	3	6500	6400	94	17	--	<1	260	250	11		
30...	4	4900	4800	120	54	50	4	220	210	15		
JUL 21...	2	3300	3300	30	6	--	<1	150	140	7		
AUG 02...	--	--	--	--	--	--	--	--	--	--		
16...	--	--	--	--	--	--	--	--	--	--		
 MERCURY												
DATE	MERCURY				SELE-				ZINC,			
	SUS- TOTAL	PENDED	MERCURY DIS- ERABLE	SOLVED ( $\mu\text{G/L}$ AS HG)	SELE- NIUM, TOTAL	DIS- SOLVED	RECOV- ERABLE	ZINC, ERABLE ( $\mu\text{G/L}$ AS SE)	SUS- PENDED	ZINC, DIS- SOLVED	SUS- PENDED	SEDI- MENT, DIS- CHARGE, SUS- PENDED
JUN 01...	.1	.0	.1	.1	<1	<1	<1	120	40	77	387	2610
08...	.2	.1	.1	<1	<1	<1	<1	90	20	74	648	3520
22...	.1	--	<.1	<1	<1	<1	<1	50	40	7	509	1970
30...	.3	--	<.1	<1	<1	<1	<1	50	30	22	392	1150
JUL 21...	.4	--	<.1	<1	<1	<1	<1	30	20	10	229	132
AUG 02...	--	--	--	--	--	--	--	--	--	--	1630	660
16...	--	--	--	--	--	--	--	--	--	--	150	40

Table 70.--Onsite measurements, trace constituents, and sediment data for station 390000107212700, Lower West Muddy Creek near Paonia Reservoir (site 18), water year October 1981 to September 1982

DATE	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	ALUM- INUM,			ARSENIC			CADMIUM			
					PHOS- PHORUS, TOTAL	DIS- ERABLE	SOLVED ( $\mu\text{G/L}$ AS P)	ARSENIC TOTAL	DIS- SOLVED ( $\mu\text{G/L}$ AS AS)	SOLVED ( $\mu\text{G/L}$ AS AS)	CADMIUM TOTAL	RECOV- ERABLE	SOLVED ( $\mu\text{G/L}$ AS CD)	
JUN 24...		55	282	8.5	10.5	.037	1000	50	<1	<1	<1	<1	<1	<1
JUL 13...		27	245	8.9	21.0	.031	480	30	<1	<1	<1	<1	<1	<1
AUG 02...		5.7	374	8.5	23.0	--	--	--	--	--	--	--	--	--
AUG 19...		6.6	373	8.2	17.5	.130	5300	20	1	1	<1	<1	<1	<1
CHRO- MIUM,														
DATE	RECOV- ERABLE ( $\mu\text{G/L}$ AS CR)	COBALT, TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS CO)	COBALT, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS CO)	COPPER, TOTAL DIS- SOLVED ( $\mu\text{G/L}$ AS CU)	COPPER, TOTAL RECOV- ERABLE ( $\mu\text{G/L}$ AS CU)	IRON, TOTAL	IRON, TOTAL	IRON, TOTAL	LEAD, TOTAL	LEAD, TOTAL	LEAD, TOTAL	LEAD, TOTAL	LEAD, TOTAL	
JUN 24...		6 <1	<1	1	4	2	1100	58	3	3	3	3	1	1
JUL 13...		5 <1	<1	<1	3	1	460	52	6	6	6	6	1	1
AUG 02...		-- --	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...		11 <1	2	<1	7	2	4700	28	4	4	4	4	1	1

Table 70.--Onsite measurements, trace constituents, and sediment data for station 390000107212700, Lower West Muddy Creek near Paonia Reservoir (site 18), water year October 1981 to September 1982--Continued

	MANGANESE, TOTAL	MANGANESE, NESE,	MERCURY TOTAL	MERCURY DISCOV- ERABLE	SELENIUM, TOTAL, SOLVED	SELENIUM, DIS- COVERABLE	ZINC, TOTAL, SOLVED	ZINC, DIS- COVERED	ZINC, MENT, SUSPENDED	ZINC, DIS- COVERED	ZINC, MENT, SUSPENDED	SEDIMENT, CHARGE, SUSPENDED
DATE	( $\mu$ G/L AS MN)	( $\mu$ G/L AS MN)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS SE)	( $\mu$ G/L AS ZN)	( $\mu$ G/L AS ZN)	(MG/L)	(MG/L)	(MG/L)	(T/DAY)
JUN 24...	40	12	.3	.1	<1	<1	10	<3	43	43	6.4	
JUL 13...	30	9	.1	<.1	<1	<1	10	10	12	18	18	1.3
AUG 02...	--	--	--	--	--	--	--	--	--	10	10	.15
19...	170	6	.1	<.1	<1	<1	30	31	211	211	3.8	

Table 71.--Onsite measurements, trace constituents, and sediment data for station 390000107212700, Lower West Muddy Creek near Paonia Reservoir (site 18), water year October 1982 to September 1983

STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE ( $\mu$ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (°C)	PHOS- PHORUS, TOTAL ( $\mu$ G/L AS P)	ALUM- INUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS AL)	ALUM- INUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS AL)	ARSENIC DIS- SOLVED ( $\mu$ G/L AS AS)
JUN 01...	893	150	8.2	9.0	.141	8100	7600
08...	586	145	8.1	10.5	.074	3900	460
21...	498	145	8.4	16.5	.058	2000	130
JUL 06...	263	195	7.8	18.0	.049	860	130
21...	68	250	8.2	17.5	.063	790	130
AUG 03...	34	300	8.1	15.5	--	--	<1
16...	18	340	8.4	17.5	--	--	<1
JUN 01...	CADMUM SUS-	CADMIUM PENDED	CADMIUM DIS- SOLVED	CHRO- MIUM, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CD)	COBALT, TOTAL, RECOV- ERABLE ( $\mu$ G/L AS CR)	COBALT, SUS- PENDED RECOV- ERABLE ( $\mu$ G/L AS CO)	COPPER, SUS- PENDED RECOV- ERABLE ( $\mu$ G/L AS CU)
08...	2	0	1	19	<1	10	24
21...	2	1	<1	15	<1	3	0
JUL 06...	1	0	1	6	<1	1	7
21...	<1	--	2	4	<1	<1	11
AUG 03...	--	--	--	--	--	8	6
16...	--	--	--	--	--	28	4

Table 71.—Onsite measurements, trace constituents, and sediment data for station 390000107212700, Lower West Muddy Creek near Paonia Reservoir (site 18), water year October 1982 to September 1983—Continued

Table 72.--Onsite measurements, trace constituents, and sediment data for station 390620107241900, East Muddy Creek near Ragged Mountain (site 19), water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTAN-TANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	ALUM-INUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS P)	ALUM-INUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS AL)	ARSENIC TOTAL, DIS-SOLVED ( $\mu$ G/L AS AS)	CADMIUM TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CD)	
MAY 05...	513	164	8.4	5.5	.193	8700	70	<1	<1
JUL 13...	25	261	8.8	19.0	.072	1000	30	<1	1
AUG 03...	12	406	8.0	19.5	--	--	--	--	<1
AUG 18...	12	351	8.1	21.0	.480	34000	30	<1	<1
<hr/>									
DATE	CHRO-MIUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CU)	COPPER, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS CU)	IRON, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS FE)	LEAD, TOTAL, RECOV-ERABLE ( $\mu$ G/L AS PB)	
MAY 05...	20	<1	6	<1	21	4	7900	20	17
JUL 13...	3	<1	<1	1	5	1	870	20	2
AUG 03...	--	--	--	20	1	75	--	--	1
AUG 18...	9	<1	--	--	--	4	27000	20	17

Table 72.--Onsite measurements, trace constituents, and sediment data for station 390620107241900, East Muddy Creek near Ragged Mountain (site 19), water year October 1981 to September 1982--Continued

MANGANESE, TOTAL	MANGANESE, NESE,	MERCURY TOTAL	MERCURY DISCOV- ERABLE	SELE- NIUM, TOTAL, SOLVED	ZINC, TOTAL, RECOV- ERABLE	ZINC, TOTAL, DIS- MENT, SOLVED	ZINC, DIS- MENT, SOLVED	ZINC, CHARGE, SUS- PENDED	SEDI- MENT, DIS- CHARGE, SUS- PENDED
( $\mu\text{G/L}$ ) AS MN)	( $\mu\text{G/L}$ ) AS MN)	( $\mu\text{G/L}$ ) AS HG)	( $\mu\text{G/L}$ ) AS HG)	( $\mu\text{G/L}$ ) AS SE)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\mu\text{G/L}$ ) AS ZN)	( $\text{T/DAY}$ )
MAY									
05....	360	20	.1	<.1	<1	<1	50	10	837 1160
JUL									
13....	50	11	.1	<.1	<1	<1	20	<3	81 5.5
AUG									
03....	--	--	--	--	--	--	--	--	1120 36
18....	1300	6	.2	<.1	<1	<1	220	5	2940 95

Table 73.--Onsite measurements, trace constituents, and sediment data for station 390620107241900, East Muddy Creek near Ragged Mountain (site 19), water year October 1982 to September 1983

STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	PH (STANDARD UNITS)	TEMPERATURE (°C)	ALUMINUM			ARSENIC			
				PHOSPHORUS, TOTAL (MG/L AS P)	RECOVERABLE ( $\mu$ G/L AS AL)	SOLVED ( $\mu$ G/L AS AL)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	PENDED ( $\mu$ G/L AS AS)	SUSPENDED ( $\mu$ G/L AS AS)	
JUN 01...	806	140	8.0	7.0	.058	18000	110	1	--	
08...	643	130	8.3	9.5	.174	7400	160	1	--	
21...	491	110	8.5	12.5	.191	8000	7900	1	--	
JUL 06...	274	180	7.8	15.0	.060	1800	30	1	--	
21...	58	260	8.1	14.0	>.500	89000	30	7	6	
AUG 03...	45	315	8.3	15.5	--	--	--	--	--	
16...	28	350	8.3	17.5	--	--	--	--	--	
CADMIUM TOTAL	SUSPENDED RECOVERABLE ( $\mu$ G/L AS CD)	CADMUM DIS-SOLVED ( $\mu$ G/L AS CD)	CHROMIUM, TOTAL RECOVERABLE ( $\mu$ G/L AS CR)	CHROMIUM, SUSPENDED RECOVERABLE ( $\mu$ G/L AS CR)	CHROMIUM, TOTAL RECOVERABLE ( $\mu$ G/L AS CR)	COBALT, TOTAL RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, SUSPENDED RECOVERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL RECOVERABLE ( $\mu$ G/L AS CU)	COPPER, SUSPENDED RECOVERABLE ( $\mu$ G/L AS CU)	
JUN 01...	2	0	4	31	28	3	10	11	1	34
08...	1	--	<1	17	--	<1	5	--	<1	12
21...	<1	--	<1	12	11	1	5	--	<1	28
JUL 06...	1	0	1	10	--	<1	2	1	1	17
21...	<1	--	<1	44	--	<1	60	--	<1	140
AUG 03...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--

Table 73.--Onsite measurements, trace constituents, and sediment data for station 390620107241900, East Muddy Creek near Ragged Mountain (site 19), water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGANESE,			
	IRON, TOTAL	SUS- PENDED	IRON, RECOV- ERABLE	DIS- SOLVED	LEAD, TOTAL	PENDED	LEAD, RECOV- ERABLE	SUS- PENDED	TOTAL	RECOV- ERABLE	RECOV. ( $\mu$ G/L AS MN)	MANGANESE, NESE,
JUN 01...	14	17000	17000	46	30	21	9	660	650	270	10	10
08...	3	7200	7100	52	10	4	6	280	270	--	7	7
21...	2	8100	8000	74	10	6	4	<10	--	--	8	8
JUL 06...	7	1600	1600	25	7	5	2	50	40	1600	1600	10
21...	4	71000	71000	67	74	--	<1	1600	1600	--	--	8
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
 MERCURY												
DATE	MERCURY TOTAL	SUS- PENDED	MERCURY RECOV- ERABLE	DIS- SOLVED	SELE- NIUM, TOTAL	PENDED	ZINC, TOTAL	SUS- PENDED	ZINC, DIS- CHARGE,	SUS- PENDED	SEDI- MENT,	SEDI- MENT,
	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS HG)	( $\mu$ G/L AS SE)	SOLVED	RECOV- ERABLE	RECOV- ERABLE	SOLVED	RECOV. ( $\mu$ G/L AS ZN)	CHARGE, ( $\mu$ G/L AS ZN)	CHARGE, ( $\mu$ G/L AS ZN)
JUN 01...	.2	.0	.2	1	<1	130	60	71	621	1350		
08...	<.1	--	<.1	1	<1	60	50	13	687	1190		
21...	.2	--	<.1	<1	<1	60	50	6	657	871		
JUL 06...	.2	--	<.1	<1	<1	30	20	6	33	24		
21...	.6	.5	.1	1	<1	580	530	47	5790	907		
AUG 03...	--	--	--	--	--	--	--	--	474	58		
16...	--	--	--	--	--	--	--	--	142	11		

Table 74.--Onsite measurements, trace constituents, and sediment data for station 390658107312500,  
West Muddy Creek near West Muddy Creek Ranger Station (site 20),  
water year October 1981 to September 1982

DATE	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPE-CIFIC CON-DUCT-ANCE ( $\mu$ S/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (°C)	PHOS-PHORUS, TOTAL ( $\mu$ G/L AS P)	ALUM-INUM, TOTAL ( $\mu$ G/L AS AL)	ARSENIC TOTAL ( $\mu$ G/L AS AS)	CADMIUM TOTAL ( $\mu$ G/L AS CD)	
MAY 04...	279	123	8.1	6.5	.220	8500	190	<1	
19...	108	166	10.5	7.0	.077	1400	<1	3	
JUN 08...	59	215	7.8	13.5	.040	1200	40	<1	
25...	31	55	7.8	14.5	.025	910	<1	<1	
JUL 13...	7.3	313	9.0	15.0	--	--	--	--	
AUG 03...	5.2	351	8.5	16.5	--	--	--	--	
18...	8.5	282	8.8	17.0	--	6700	20	<1	
DATE	CHRO-MIUM, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS CR)	CHRO-MIUM, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS CO)	COBALT, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS CO)	COPPER, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS CU)	IRON, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS FE)	IRON, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS PB)	LEAD, TOTAL DIS-RECOV-ERABLE ( $\mu$ G/L AS PB)	
MAY 04...	24	<1	6	<1	20	2	8200	60	16
19...	3	<1	1	1	6	2	1300	81	<1
JUN 08...	5	<1	2	<1	4	1	1300	67	5
25...	7	<1	2	<1	3	2	1100	75	2
JUL 13...	--	--	--	--	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	--	--	--
18...	15	<1	4	<1	10	2	7500	53	4
									3

Table 74.--Onsite measurements, trace constituents, and sediment data for station 390658107312500,  
West Muddy Creek near West Muddy Creek Ranger station (site 20),  
water year October 1981 to September 1982--Continued

DATE	MANGA- NESE, TOTAL	MANGA- NESE, DIS- RECOV- ERABLE	MERCURY TOTAL RECOV- ERABLE	MERCURY DIS- SOLVED ERABLE	SELE- NIUM, TOTAL SOLVED ERABLE	ZINC, TOTAL RECOV- ERABLE	SELE- NIUM, TOTAL SOLVED ERABLE	ZINC, TOTAL RECOV- ERABLE	SEDI- MENT, DIS- CHARGE, SUS- PENDED
	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ )	(AS MN) (AS HG)	( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ ) ( $\mu\text{g}/\text{L}$ )	( $\mu\text{g}/\text{L}$ ) (AS HG)	( $\mu\text{g}/\text{L}$ ) (AS SE)	( $\mu\text{g}/\text{L}$ ) (AS ZN)	( $\mu\text{g}/\text{L}$ ) (AS ZN)	( $\mu\text{g}/\text{L}$ ) (AS ZN)	( $\text{mg}/\text{L}$ ) ( $\text{mg}/\text{L}$ ) ( $\text{mg}/\text{L}$ )
MAY									
04...	300	10	.1	<.1	<1	<1	60	10	645
19...	50	6	.2	<.1	<1	<1	20	6	80
JUN									23
08...	50	13	.4	.8	<1	<1	20	15	57
25...	50	12	.1	.8	<1	<1	10	7	37
JUL									3.1
13...	--	--	--	--	--	--	--	--	
AUG									
03...	--	--	--	--	--	--	--	--	.85
18...	200	8	.1	<.1	<1	<1	60	5	36
									.51
									5.7

Table 75.--Onsite measurements, trace constituents, and sediment data for station 390658107312500, West Muddy Creek near West Muddy Creek Ranger Station (site 20), water year October 1982 to September 1983

Table 75.--Onsite measurements, trace constituents, and sediment data for station 390658107312500,  
West Muddy Creek near West Muddy Creek Ranger Station (site 20),  
water year October 1982 to September 1983--Continued

DATE	IRON,				LEAD,				MANGA-			
	IRON , TOTAL	SUS- PENDED	IRON , DIS- RECOV- ERABLE	IRON , SOLVED	LEAD , TOTAL	LEAD , DIS- RECOV- ERABLE	LEAD , SOLVED	LEAD , RECOV- ERABLE	NESE , TOTAL	NESE , SUS- PENDED	NESE , DIS- RECOV.	MANGA- NESE , AS MN)
JUN 08....	3	2900	2800	85	8	5	3	100	90	9	90	9
21....	1	3600	3500	130	9	8	1	130	120	12	120	12
JUL 06....	7	930	810	120	7	5	2	40	30	12	30	12
20....	8	1600	1600	50	<1	--	<1	100	90	15	90	15
AUG 03....	--	--	--	--	--	--	--	--	--	--	--	--
16....	--	--	--	--	--	--	--	--	--	--	--	--
 MERCURY												
DATE	MERCURY TOTAL	SUS- PENDED	MERCURY DIS- RECOV- ERABLE	MERCURY SOLVED	SELE- NIUM , TOTAL	SELE- NIUM , SOLVED	ZINC , TOTAL	ZINC , SUS- PENDED	ZINC , DIS- RECOV- ERABLE	ZINC , SUS- PENDED	ZINC , CHARGE , SUS- PENDED	SEDI- MENT , DIS- CHARGE , SUS- PENDED
JUN 08....	<.1	--	<.1	<.1	<1	<1	20	0	0	11	24	13
21....	.1	--	<.1	<.1	<1	<1	40	0	0	50	193	86
JUL 06....	.3	.2	.1	<.1	<1	<1	20	0	0	11	94	110
20....	.1	--	<.1	<.1	<1	<1	20	20	5	5	67	4.3
AUG 03....	--	--	--	--	--	--	--	--	--	--	16	.65
16....	--	--	--	--	--	--	--	--	--	--	19	.40

Table 76.--Statistical summary of streamflow and selected water-quality data for station 09132050, Anthracite Creek near Somerset (site 3)

PROPERTIES AND CONSTITUENTS	NUMBER OF SAMPLES	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STANDARD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	52	206.09	354.31	14.00	1970.00	49.13
SPECIFIC CONDUCTANCE ( $\mu$ S/CM)	39	126.21	54.91	58.00	380.00	8.79
pH (STANDARD UNITS)	40	7.58	0.66	6.70	8.90	0.10
TEMPERATURE (°C)	108	6.54	5.14	0.00	17.00	0.49
HARDNESS (MG/L AS CACO <sub>3</sub> )	38	53.68	21.63	22.00	140.00	3.51
HARDNESS, NONCARBONATE (MG/L AS CACO <sub>3</sub> )	37	10.11	11.52	0.00	71.00	1.89
CALCIUM DISSOLVED (MG/L AS CA)	38	17.31	6.15	8.40	38.00	1.00
MAGNESIUM, DISSOLVED (MG/L AS MG)	37	2.58	1.49	0.88	9.90	0.25
SODIUM, DISSOLVED (MG/L AS NA)	36	3.51	1.31	1.50	8.60	0.22
PERCENT SODIUM	36	12.22	1.40	9.00	15.00	0.23
SODIUM ABSORPTION RATIO	36	0.21	0.05	0.10	0.30	0.01
POTASSIUM, DISSOLVED (MG/L AS K)	37	0.57	0.27	0.30	1.90	0.05
ALKALINITY FIELD (MG/L AS CACO <sub>3</sub> )	27	41.56	15.04	17.00	64.00	2.89
ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	11	49.64	12.15	28.00	66.00	3.66
SULFATE DISSOLVED (MG/L AS SO <sub>4</sub> )	38	12.56	5.08	0.70	20.00	0.82
CHLORIDE, DISSOLVED (MG/L AS CL)	37	1.01	0.53	0.30	2.80	0.09
FLUORIDE, DISSOLVED (MG/L AS F)	38	0.11	0.04	0.00	0.20	0.01
SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	38	6.62	0.67	5.10	8.00	0.11
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	37	71.11	22.44	33.00	130.00	3.69
SOLIDS, DISSOLVED (TONS PER AC-FT)	38	0.10	0.03	0.05	0.14	0.00
SOLIDS, DISSOLVED (TONS PER DAY)	38	26.16	32.44	3.20	116.00	5.26
NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DISSOLVED (MG/L AS N)	0	-----	-----	-----	-----	-----
POTASSIUM, 40 DISSOLVED (PCl/L AS K40)	8	0.36	0.05	0.30	0.40	0.02
PHOSPHORUS, TOTAL (MG/L AS P)	34	0.02	0.03	0.00	0.16	0.01
ALUMINUM, TOTAL RECOVERABLE ( $\mu$ G/L AS AL)	0	-----	-----	-----	-----	-----
ALUMINUM, SUSPENDED RECOV. ( $\mu$ G/L AS AL)	0	-----	-----	-----	-----	-----
ALUMINUM, DISSOLVED ( $\mu$ G/L AS AL)	14	53.43	57.71	0.00	220.00	15.42
ARSENIC TOTAL ( $\mu$ G/L AS AS)	6	1.00	0.63	0.00	2.00	0.26
ARSENIC SUSPENDED TOTAL ( $\mu$ G/L AS AS)	4	0.25	0.50	0.00	1.00	0.25
ARSENIC DISSOLVED ( $\mu$ G/L AS AS)	14	0.93	0.47	0.00	2.00	0.13
CADMIUM TOTAL RECOVERABLE ( $\mu$ G/L AS CD)	6	0.67	1.03	0.00	2.00	0.42
CADMIUM SUSPENDED RECOVERABLE ( $\mu$ G/L AS C)	4	0.00	0.00	0.00	0.00	0.00
CADMIUM DISSOLVED ( $\mu$ G/L AS CD)	14	2.14	2.14	0.00	8.00	0.57

Table 76.--Statistical summary of streamflow and selected water-quality data for station 09132050, Anthracite Creek near Somerset (site 3)--Continued

PROPERTIES AND CONSTITUENTS	NUMBER OF SAMPLES	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STANDARD ERROR OF MEAN
CHROMIUM, TOTAL RECOVERABLE ( $\mu\text{G/L AS CR}$ )	6	8.33	16.02	0.00	40.00	6.54
CHROMIUM, SUSPENDED RECOV. ( $\mu\text{G/L AS CR}$ )	5	8.00	17.89	0.00	40.00	8.00
CHROMIUM, DISSOLVED ( $\mu\text{G/L AS CR}$ )	14	3.57	6.33	0.00	20.00	1.69
COBALT, TOTAL RECOVERABLE ( $\mu\text{G/L AS CO}$ )	6	0.17	0.41	0.00	1.00	0.17
COBALT, SUSPENDED RECOVERABLE ( $\mu\text{G/L AS C}$ )	3	0.00	0.00	0.00	0.00	0.00
COBALT, DISSOLVED ( $\mu\text{G/L AS CO}$ )	14	2.71	0.91	0.00	4.00	0.24
COPPER, TOTAL RECOVERABLE ( $\mu\text{G/L AS CU}$ )	0	-----	-----	-----	-----	-----
COPPER, SUSPENDED RECOVERABLE ( $\mu\text{G/L AS C}$ )	0	-----	-----	-----	-----	-----
COPPER, DISSOLVED ( $\mu\text{G/L AS CU}$ )	14	5.00	4.56	0.00	10.00	1.22
IRON, TOTAL RECOVERABLE ( $\mu\text{G/L AS FE}$ )	0	-----	-----	-----	-----	-----
IRON, SUSPENDED RECOVERABLE ( $\mu\text{G/L AS FE}$ )	0	-----	-----	-----	-----	-----
IRON, DISSOLVED ( $\mu\text{G/L AS FE}$ )	38	28.03	17.36	10.00	74.00	2.82
LEAD, TOTAL RECOVERABLE ( $\mu\text{G/L AS PB}$ )	6	10.33	12.88	0.00	32.00	5.26
LEAD, SUSPENDED RECOVERABLE ( $\mu\text{G/L AS PB}$ )	3	2.33	4.04	0.00	7.00	2.33
LEAD, DISSOLVED ( $\mu\text{G/L AS PB}$ )	13	9.08	8.89	0.00	27.00	2.47
MANGANESE, TOTAL RECOVERABLE ( $\mu\text{G/L AS MN}$ )	6	10.00	6.32	0.00	20.00	2.58
MANGANESE, SUSPENDED RECOV. ( $\mu\text{G/L AS MN}$ )	5	8.20	7.29	0.00	20.00	3.26
MANGANESE, DISSOLVED ( $\mu\text{G/L AS MN}$ )	14	3.21	3.33	1.00	10.00	0.89
MERCURY, TOTAL RECOVERABLE ( $\mu\text{G/L AS HG}$ )	6	0.10	0.11	0.00	0.30	0.04
MERCURY SUSPENDED RECOVERABLE ( $\mu\text{G/L AS}$ )	5	0.10	0.12	0.00	0.30	0.05
MERCURY DISSOLVED ( $\mu\text{G/L AS HG}$ )	14	0.06	0.06	0.00	0.20	0.02
SELENIUM, TOTAL ( $\mu\text{G/L AS SE}$ )	6	0.33	0.52	0.00	1.00	0.21
SELENIUM, SUSPENDED TOTAL ( $\mu\text{G/L AS SE}$ )	5	0.00	0.00	0.00	0.00	0.00
SELENIUM, DISSOLVED ( $\mu\text{G/L AS SE}$ )	14	0.43	0.51	0.00	1.00	0.14
ZINC, TOTAL RECOVERABLE ( $\mu\text{G/L AS ZN}$ )	5	12.00	13.04	0.00	30.00	5.83
ZINC, SUSPENDED RECOVERABLE ( $\mu\text{G/L AS ZN}$ )	5	7.00	8.37	0.00	20.00	3.74
ZINC, DISSOLVED ( $\mu\text{G/L AS ZN}$ )	14	19.36	44.19	0.00	170.00	11.81
SEDIMENT, SUSPENDED ( $\text{MG/L}$ )	39	22.38	46.88	0.00	237.00	7.51
SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	39	41.62	117.86	0.00	589.00	18.87

Table 77. -Statistical summary of streamflow and selected water-quality data for station 09132500, North Fork Gunnison River near Somerset (site 4)

PROPERTIES AND CONSTITUENTS	NUMBER OF SAMPLES	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STANDARD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	64	701.41	929.12	21.00	3390.00	116.14
SPECIFIC CONDUCTANCE ( $\mu\text{s}/\text{cm}$ )	93	162.94	80.38	53.00	585.00	8.33
PH (STANDARD UNITS)	50	7.76	0.56	6.30	9.10	0.08
TEMPERATURE (°C)	254	8.25	6.23	0.00	22.00	0.39
HARDNESS (MG/L AS CACO <sub>3</sub> )	53	61.66	16.76	32.00	110.00	2.30
HARDNESS, NONCARBONATE (MG/L AS CACO <sub>3</sub> )	52	0.85	1.72	0.00	7.00	0.24
CALCIUM DISSOLVED (MG/L AS CA)	53	19.26	5.12	10.00	34.00	0.70
MAGNESIUM, DISSOLVED (MG/L AS MG)	53	3.29	0.96	1.80	5.80	0.13
SODIUM, DISSOLVED (MG/L AS NA)	53	6.69	2.37	2.90	11.00	0.33
PERCENT SODIUM	53	18.55	2.96	14.00	27.00	0.41
SODIUM ADOPTION RATIO	53	0.38	0.10	0.20	0.60	0.01
POTASSIUM, DISSOLVED (MG/L AS K)	53	0.80	0.26	0.40	1.60	0.04
ALKALINITY FIELD (MG/L AS CACO <sub>3</sub> )	26	62.77	18.41	30.00	98.00	3.61
ALKALINITY LAB (MG/L AS CACO <sub>3</sub> )	26	66.50	22.52	38.00	120.00	4.42
SULFATE DISSOLVED (MG/L AS SO <sub>4</sub> )	52	9.83	4.44	0.60	23.00	0.62
CHLORIDE, DISSOLVED (MG/L AS CL)	53	1.63	0.84	0.50	3.60	0.11
FLUORIDE, DISSOLVED (MG/L AS F)	53	0.12	0.04	0.00	0.20	0.01
SILICA, DISSOLVED (MG/L AS SIO <sub>2</sub> )	53	8.72	0.99	3.90	11.00	0.14
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	51	89.86	22.46	51.00	140.00	3.14
SOLIDS, DISSOLVED (TONS PER AC-FT)	51	0.12	0.03	0.07	0.19	0.00
SOLIDS, DISSOLVED (TONS PER DAY)	51	120.40	160.52	5.40	663.00	22.48
NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DISSOLVED (MG/L AS N)	7	0.21	0.13	0.10	0.37	0.05
POTASSIUM, 40 DISSOLVED (PCI/L AS K40)	7	0.54	0.08	0.40	0.60	0.03
PHOSPHORUS, TOTAL (MG/L AS P)	47	0.04	0.03	0.00	0.13	0.00
ALUMINUM, TOTAL RECOVERABLE (μG/L AS AL)	21	506.19	846.02	40.00	4000.00	184.62
ALUMINUM, SUSPENDED RECOV. (μG/L AS AL)	12	526.67	1116.16	0.00	4000.00	322.21
ALUMINUM, DISSOLVED (μG/L AS AL)	14	49.29	51.96	10.00	200.00	13.89
ARSENIC, TOTAL (μG/L AS AS)	21	1.00	0.55	0.00	2.00	0.12
ARSENIC SUSPENDED TOTAL (μG/L AS AS)	8	0.38	0.52	0.00	1.00	0.18
ARSENIC DISSOLVED (μG/L AS AS)	14	1.07	0.47	0.00	2.00	0.13
CADMIUM TOTAL RECOVERABLE (μG/L AS CD)	21	2.81	5.79	0.00	20.00	1.26
CADMIUM SUSPENDED RECOVERABLE (μG/L AS C)	9	3.33	6.73	0.00	19.00	2.24
CADMIUM DISSOLVED (μG/L AS CD)	15	1.33	0.62	0.00	2.00	0.16

Table 77.--Statistical summary of streamflow and selected water-quality data for station 09132500, North Fork Gunnison River near Somerset (site 4)

PROPERTIES AND CONSTITUENTS	NUMBER OF SAMPLES	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STANDARD ERROR OF MEAN
CHROMIUM, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS CR)	21	7.52	8.20	0.00	30.00	1.79
CHROMIUM, SUSPENDED RECOV. ( $\mu\text{G/L}$ AS CR)	12	3.33	8.88	0.00	30.00	2.56
CHROMIUM, DISSOLVED ( $\mu\text{G/L}$ AS CR)	14	5.14	8.47	0.00	20.00	2.26
COBALT, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS CO)	2	1.00	0.00	1.00	1.00	0.00
COBALT, SUSPENDED RECOVERABLE ( $\mu\text{G/L}$ AS CO)	0	-----	-----	-----	-----	-----
COBALT, DISSOLVED ( $\mu\text{G/L}$ AS CO)	3	1.67	1.15	1.00	3.00	0.67
COPPER, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS CU)	21	4.81	4.61	0.00	20.00	1.01
COPPER, SUSPENDED RECOVERABLE ( $\mu\text{G/L}$ AS CU)	12	1.83	2.59	0.00	9.00	0.75
COPPER, DISSOLVED ( $\mu\text{G/L}$ AS CU)	14	1.29	0.91	0.00	2.00	0.24
IRON, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS FE)	2	895.00	148.49	790.00	1000.00	105.00
IRON, SUSPENDED RECOVERABLE ( $\mu\text{G/L}$ AS FE)	0	-----	-----	-----	-----	-----
IRON, DISSOLVED ( $\mu\text{G/L}$ AS FE)	48	53.88	56.92	10.00	230.00	8.22
LEAD, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS PB)	21	19.86	46.76	0.00	200.00	10.20
LEAD, SUSPENDED RECOVERABLE ( $\mu\text{G/L}$ AS PB)	12	19.17	32.80	0.00	100.00	9.47
LEAD, DISSOLVED ( $\mu\text{G/L}$ AS PB)	14	4.21	7.86	0.00	29.00	2.10
MANGANESE, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS MN)	21	27.62	24.27	10.00	100.00	5.30
MANGANESE, SUSPENDED RECOV. ( $\mu\text{G/L}$ AS MN)	12	17.08	23.57	0.00	80.00	6.80
MANGANESE, DISSOLVED ( $\mu\text{G/L}$ AS MN)	15	10.13	10.14	1.00	40.00	2.62
MERCURY, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS HG)	21	0.10	0.10	0.00	0.40	0.02
MERCURY, SUSPENDED RECOVERABLE ( $\mu\text{G/L}$ AS HG)	12	0.03	0.07	0.00	0.20	0.02
MERCURY, DISSOLVED ( $\mu\text{G/L}$ AS HG)	14	0.08	0.06	0.00	0.20	0.02
SELENIUM, TOTAL ( $\mu\text{G/L}$ AS SE)	21	0.57	0.51	0.00	1.00	0.11
SELENIUM, SUSPENDED TOTAL ( $\mu\text{G/L}$ AS SE)	12	0.08	0.29	0.00	1.00	0.08
SELENIUM, DISSOLVED ( $\mu\text{G/L}$ AS SE)	14	0.64	0.50	0.00	1.00	0.13
ZINC, TOTAL RECOVERABLE ( $\mu\text{G/L}$ AS ZN)	21	19.05	14.11	0.00	50.00	3.08
ZINC, SUSPENDED RECOVERABLE ( $\mu\text{G/L}$ AS ZN)	10	10.10	12.14	0.00	30.00	3.84
ZINC, DISSOLVED ( $\mu\text{G/L}$ AS ZN)	15	6.40	12.36	0.00	50.00	3.19
SEDIMENT, SUSPENDED (MG/L)	38	60.76	101.25	1.00	470.00	16.42
SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	38	286.10	756.23	0.19	3830.00	122.68